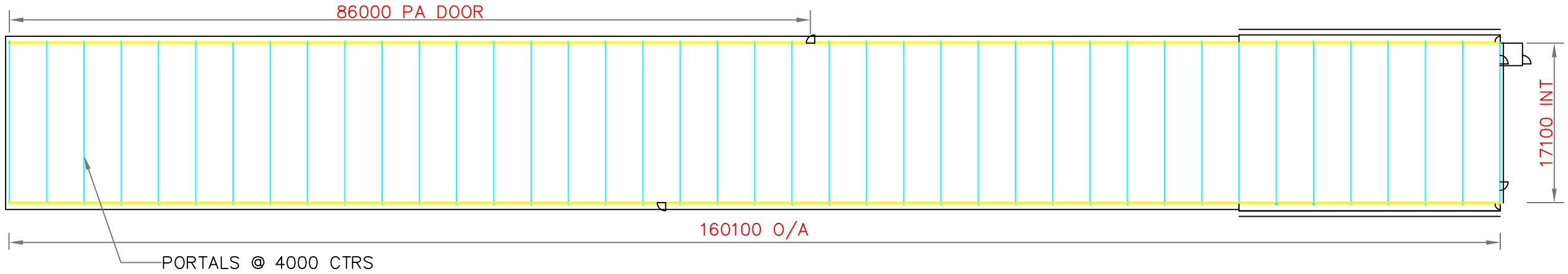
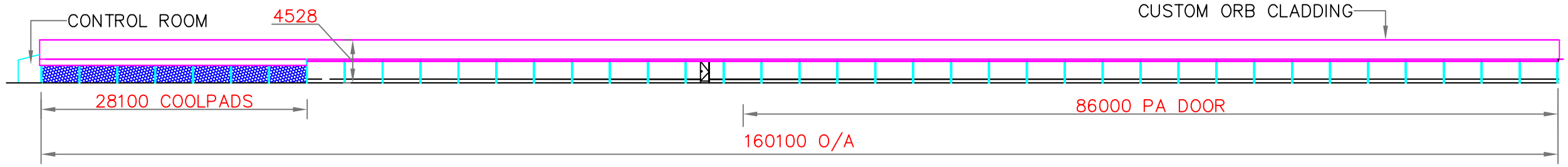
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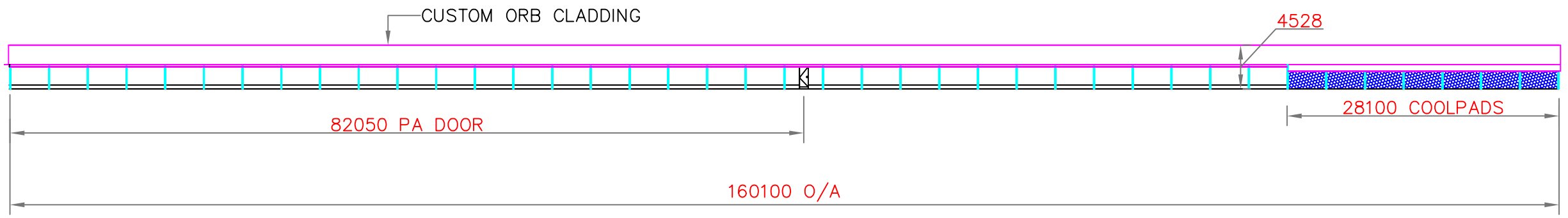
Poultry Sheds



PLANVIEW
SCALE 1 :500 A3



NORTH ELEVATION
SCALE 1 :500 A3



SOUTH ELEVATION
SCALE 1 :500 A3

FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DRAWINGS
CONTRACTORS SHALL VERIFY ALL DIMENSIONS BEFORE COMMENCING

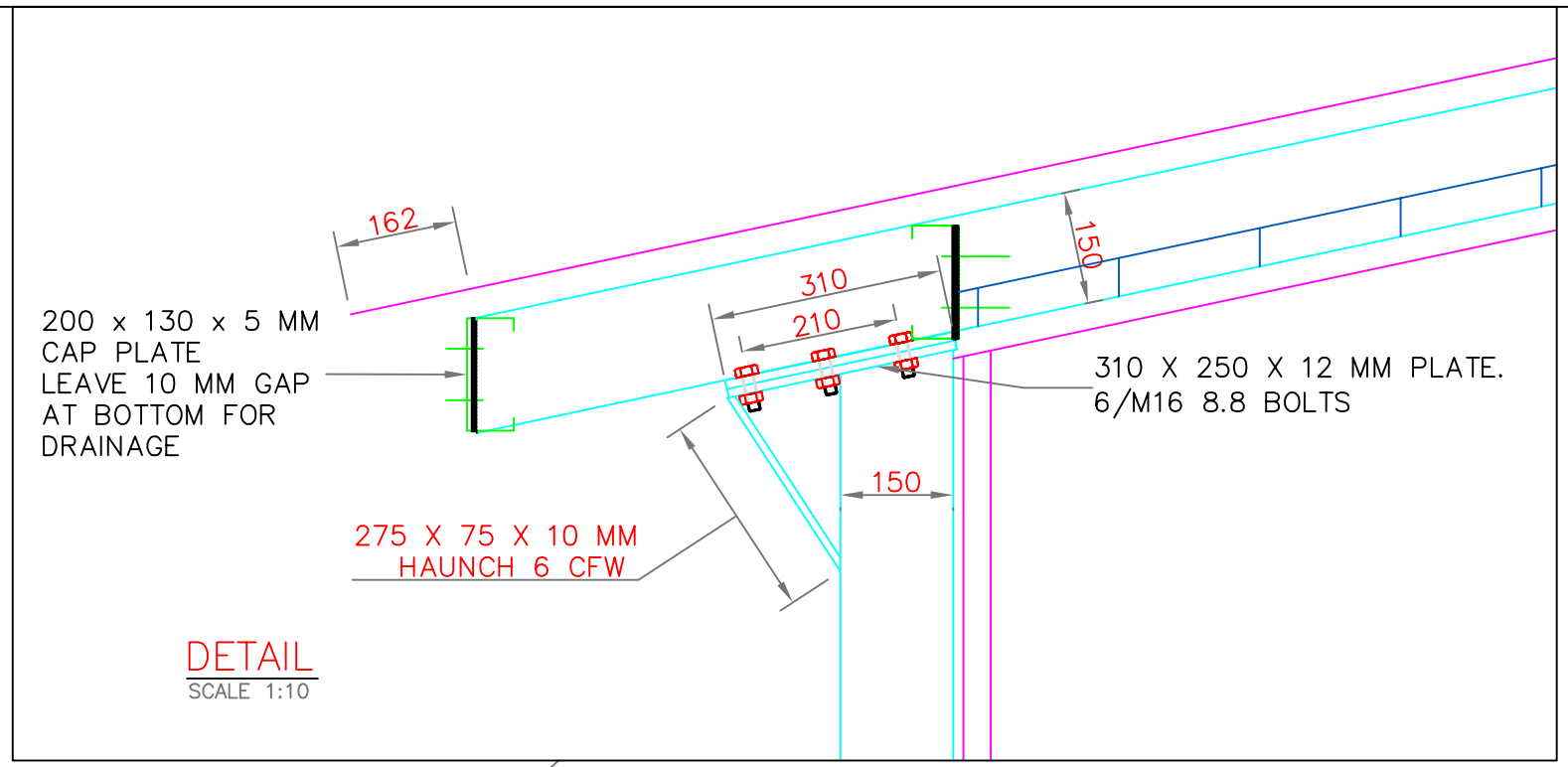
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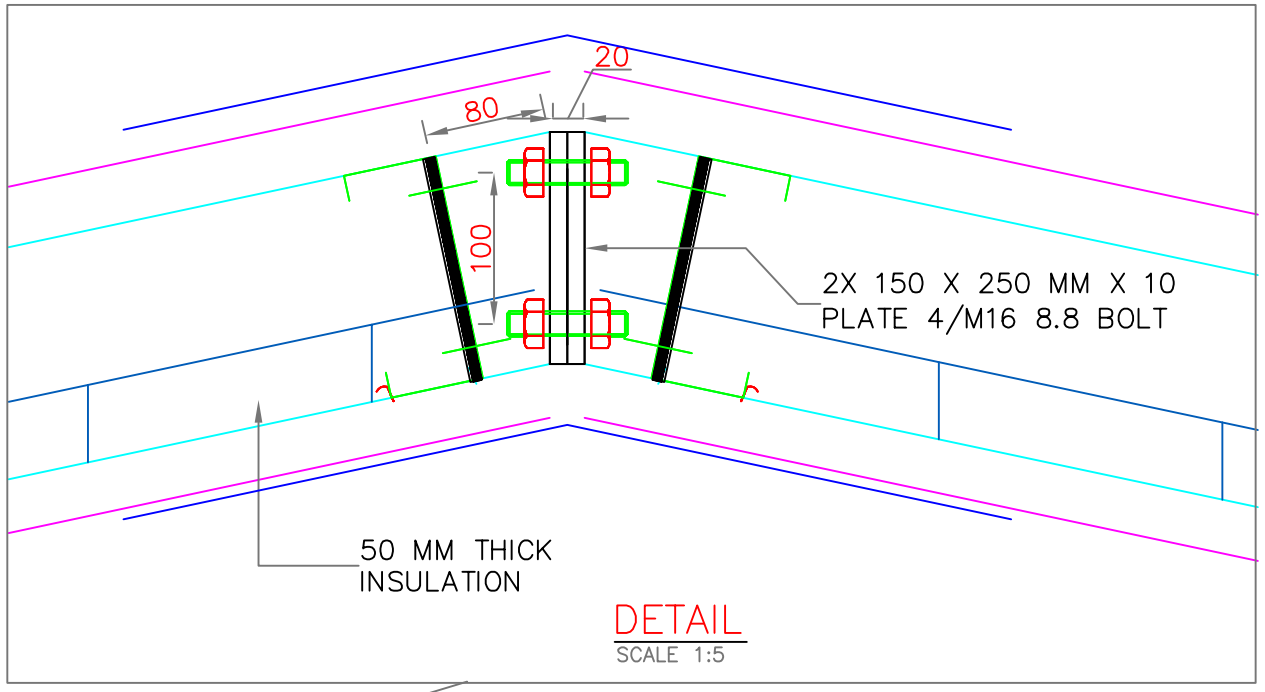
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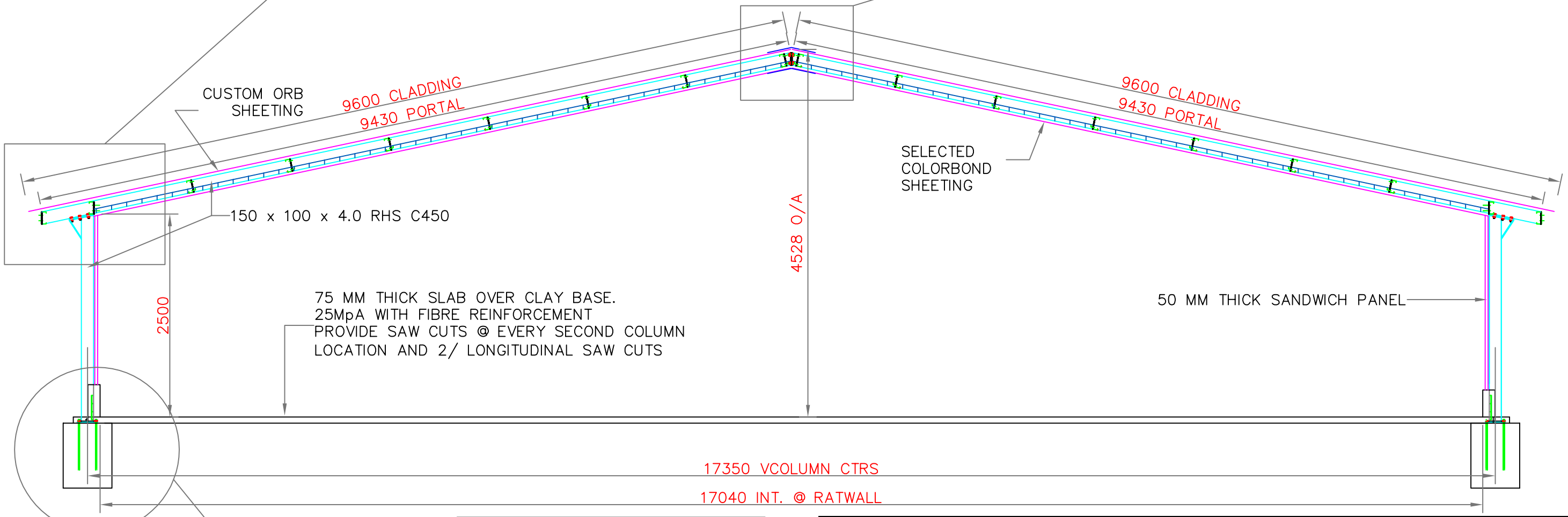
ITEM	DESCRIPTION	REMARKS
SHEET No: 1 OF 5	TITLE: PLANVIEW & ELEVATIONS	SCALE: AS NOTED A3
	PROJECT: BROILER SHED	DATE: 1/08/2014
	CLIENT: PRO.TEN Ltd NARRANDERA LOT 42 STURT HIGHWAY EUROLEY NSW 2700	
		PLOT DATE
DRAWN: BS / TRACED: PB / CHECKED: KN	A3	DRAWING NUMBER: S1



DETAIL
SCALE 1:10



DETAIL
SCALE 1:5



TYP.SECTION
SCALE 1:50

1
S3

REVISION: A DATED 20-10-14
CORRECTED DIMENSION OF PLATES IN RIDGE

FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DRAWINGS
CONTRACTORS SHALL VERIFY ALL DIMENSIONS BEFORE COMMENCING

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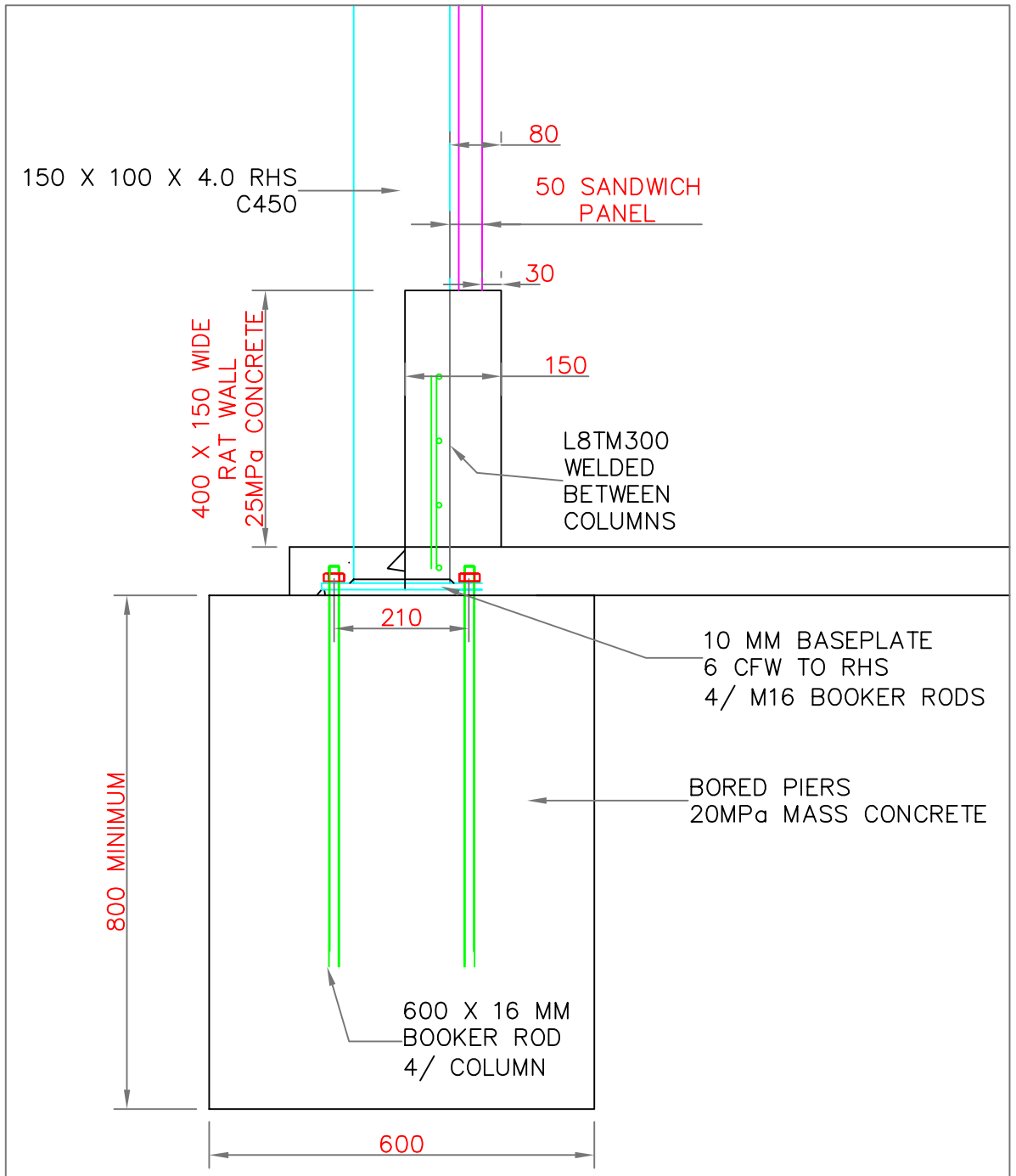
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ITEM	DESCRIPTION	REMARKS
SHEET No: 2 OF 5	TITLE: TYP. SECTION & DETAILS	SCALE: AS NOTED A3
	PROJECT: BROILER SHED	DATE: 1/08/2014
	CLIENT: PRO.TEN Ltd NARRANDERA LOT 42 STURT HIGHWAY EUROLEY NSW 2700	PLOT DATE
DRAWN: BS	TRACED: PB	CHECKED: KN
A3		DRAWING NUMBER: S2

MEMBER SCHEDULE

MARK	SIZE	REMARKS
COLUMNS	150 X 100 X 4	GRADE 450
RAFTERS	150 X 100 X 4	GRADE 450
ROOF PURLINS	C15012	GALVANISED
PURLINS @ EVAP. COOLING	C300–15	GALVANISED



DETAIL 1 S2
SCALE 1:5 A3

BRIEF SPECIFICATIONS

GENERAL SLAB AND FOOTING REQUIREMENTS:

1. TOP SOIL AND VEGETATION SHALL BE STRIPPED FROM SITE TO A MINIMUM DEPTH OF 100mm.
2. PRIOR TO THE PLACEMENT TO ANY CONTROLLED FILL, THE EXPOSED SUB GRADE SHALL BE COMPACTED TO A MINIMUM 95
3. % RELATIVE DENSITY.
   ALL ORGANIC MATTER AND SOFT AREAS SHALL BE REMOVED AND REPLACED WITH GRANULAR MATERIAL. ALL FILLING SHALL BE CLEAR GRANULAR MATERIAL PLACED IN MAXIMUM 150mm COMPACTED LAYERS AND COMPACTED BY WATERING AND USE OF VIBRATING ROLLER OR COMPACTOR TO ACHIEVE CONTROLLED FILL
4. AS PER AS2870. FILL SHALL BE COMPACTED TO MINIMUM AS1289.1.1 (1993), OR WHEN TESTED PASS THE REQUIRED MIN. 100kPa BEARING CAPACITY FOR THE FOOTING.
5. GROUND SURFACES AROUND THE PIGGERY TO BE GRADED SO THAT NO WATER PONDS AROUND THE FOOTINGS. PROVIDE 100mm FALL OVER THE FIRST 1000mm FROM THE BUILDINGS. THE BUILDER IS TO DETERMINE THE PRESENCE OF ANY ADDITIONAL FILLED AREAS, WHICH WOULD NECESSITATE THE USE OF MODIFIED FOOTINGS.

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO BE OBTAINED FROM THE ARCHITECTS DRAWINGS OR FROM SITE. ENGINEERS DRAWINGS MUST NOT BE
2. SCALED.
   THE APPROVAL OF A SUBSTITUTION BY THE ENGINEER IS NOT AN AUTHORIZATION FOR AN EXTRA. ANY EXTRA INVOLVED MUST BE
3. TAKEN UP WITH THE ARCHITECT BEFORE WORK COMMENCES. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.

STRUCTURAL STEEL

1. ALL STEELWORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE AS4100, SAA STEEL STRUCTURES CODE.
2. WELDS TO BE 6mm CONTINUOUS FILLET LAID DOWN WITH APPROVED COVERED ELECTRODE IN ACCORDANCE WITH AS1554 – WELDING CODE. BOLTS 20mm DIA, BLACK IN 22mm CLEARANCE
3. HOLES, GUSSET PLATES 10mm THICK UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS NOMINATED 'HS' TO BE SNUG TIGHTENED ONLY UNLESS NOTED.

CONCRETE

1. ALL CONCRETE WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SAA CONCRETE STRUCTURES CODE AS3600.
2. ALL CONCRETE SHALL BE:
   GRADE 25 MpA – FOOTINGS.
   GRADE 25 MpA – SLAB, PANELS U.N.O.
3. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS. SLABS AND BEAMS ARE TO BE POURED TOGETHER.
4. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE PROPERLY FORMED AND LOCATED TO THE APPROVAL OF THE ENGINEER.
5. CONCRETE TO BE KEPT FREE OF SUPPORTING BRICKWORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID ETC.) OR AS DIRECTED BY THE ENGINEER. VERTICAL FACES OF CONCRETE TO BE KEPT FREE BY A 12 THICKNESS OF BITUMINOUS CANITE.
6. CHECK WITH THE ARCHITECT REGARDING V–JOINT ON RENDERED SURFACES.
7. BRICKWORK MUST NOT BE BUILT ON CONCRETE SLABS OR BEAMS UNTIL THE SUPPORTING FORMWORK HAS BEEN REMOVED.
8. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
   REINFORCEMENT NOTATIONS:
   SL DENOTES HARD–DRAWN WIRE REINFORCING FABRIC TO AS1304.
   R DENOTES STRUCTURAL–GRADE PLAIN ROUND BARS TO
9. AS1302.
   Y DENOTES COLD–WORKED DEFORMED BAR TO AS1302.
   THE NUMBER IMMEDIATELY FOLLOWING THE BAR GRADE SYMBOL
10. REPRESENTS THE NOMINAL BAR DIAMETER IN MILLIMETERS.
11. AT OPENINGS IN WALLS ADD 2/N16 BARS ON ALL SIDES PROJECTING 600 PAST THE CORNERS UNLESS OTHERWISE NOTED ON THIS DRAWING.
12. ALL REINFORCEMENT FOR ANY ONE POUR SHALL BE COMPLETELY PLACED AND TIED PRIOR TO INSPECTION BY THE ENGINEER OR ARCHITECT. NO CONCRETE SHALL BE POURED UNTIL REINFORCEMENT HAS BEEN INSPECTED AND APPROVED. THE BUILDERS ATTENTION IS SPECIALLY DIRECTED TO THE TOP STEEL ON THIS JOB. REINFORCEMENT IS TO BE SECURELY TIED AND SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETING.

CONCRETE DETAILS

STRENGTH:	
FLOORS –	EXPOSED TO PIGS32 MpA UNO
	ALL OTHER 25MPa UNO
U	REINFORCE USING SL72 MESH CENTRAL
WALLS –	25 MpA UNO
	REINFORCE USING SL82 MESH CENTRAL UNO
AGGREGATE:	20mm NOM. MAX
CEMENT TYPE:	A OR FA
REINFORCING:	AS SHOWN, 225 SIDE & END LAP
	40mm MIN COVER
CONTRACTION JOINTS:	5m MAX SPACING. NO JOINTS IN FLOORS EXPOSED TO MANURE
FILL:	100 mm COMPACTED SAND IF REQUIRED

PROVIDE WATER PROOFING MEMBRANE TO UNDERSIDE OF CONCRETE FLOORS THROUGHOUT. LAP 300 AND TAPE AS REQUIRED

FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DRAWINGS
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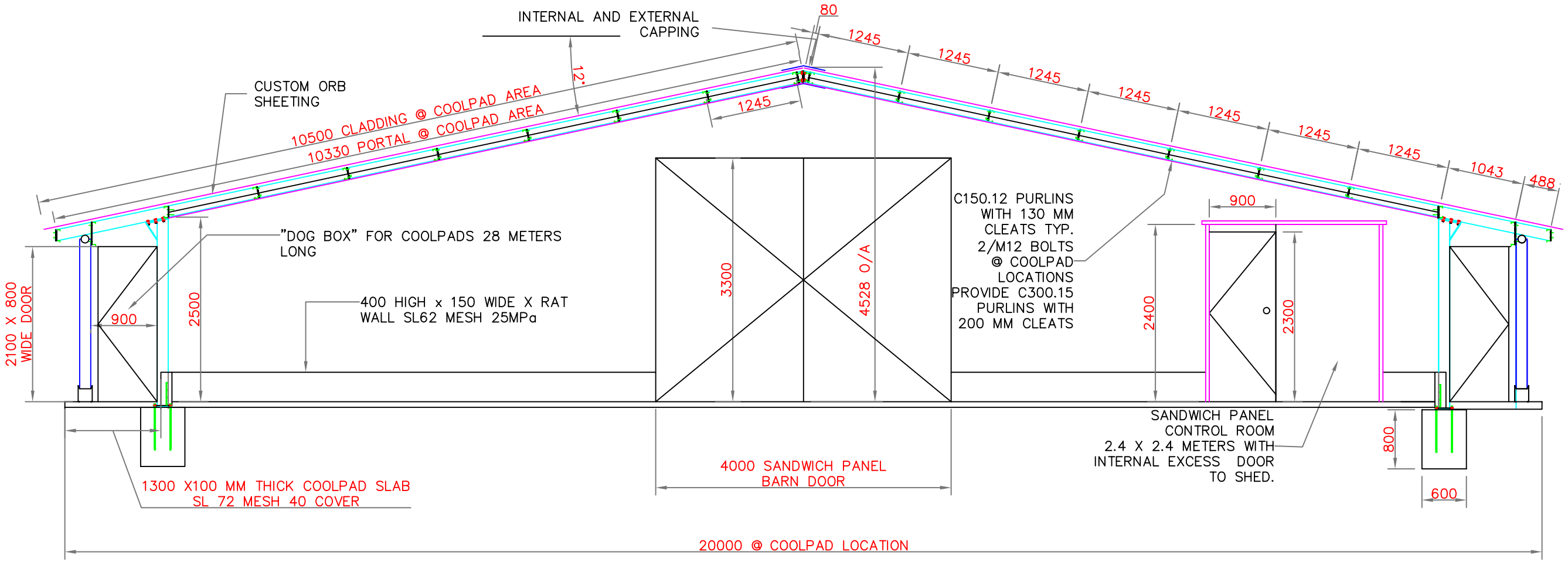
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ITEM	DESCRIPTION	REMARKS
SHEET No: 3 OF 5	TITLE: DETAIL, NOTES & MEMBER SCHEDULE	SCALE: AS NOTED A3
	PROJECT: BROILER SHED	DATE: 1/08/2014
	CLIENT: PRO.TEN Ltd NARRANDERA LOT 42 STURT HIGHWAY EUROLEY NSW 2700	
		PLOT DATE
DRAWN: BS	TRACED: PB	CHECKED: KN
A3		DRAWING NUMBER: S3



EAST ELEVATION
SCALE 1 :60 A3

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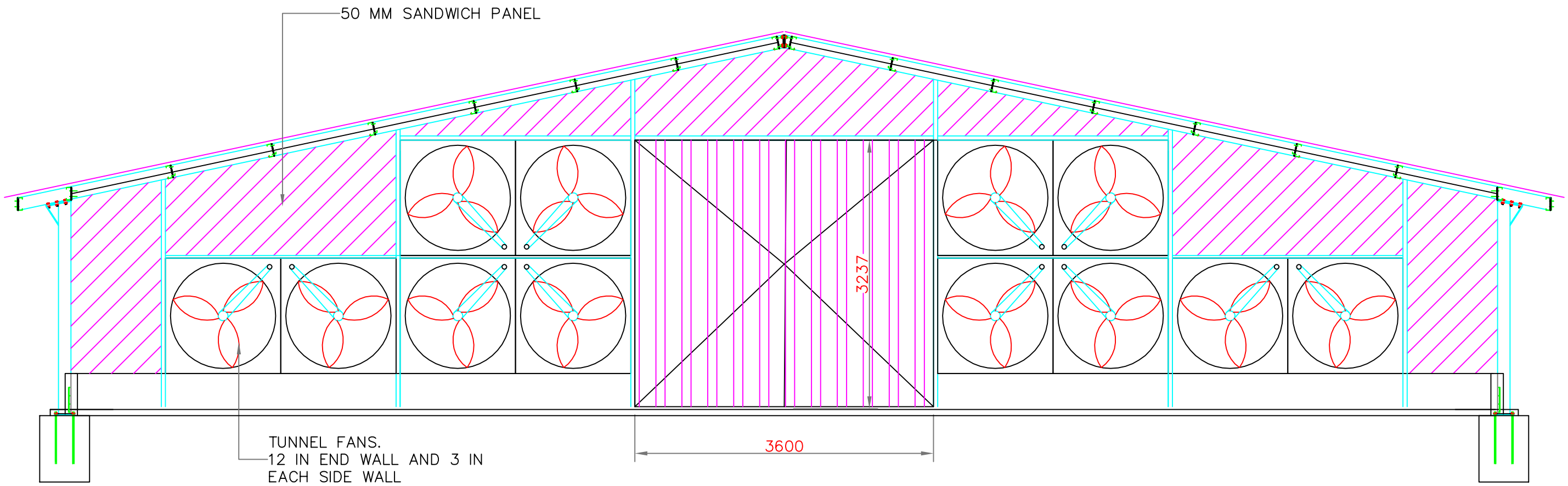
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ITEM	DESCRIPTION	REMARKS
SHEET No: 4 OF 5	TITLE: ELEVATION	SCALE: AS NOTED A3
	PROJECT: BROILER SHED	DATE: 1/08/2014
	CLIENT: PRO.TEN Ltd NARRANDERA LOT 42 STURT HIGHWAY EUROLEY NSW 2700	
		PLOT DATE
	DRAWN: BS / TRACED: PB / CHECKED: KN / A3	DRAWING NUMBER: S4



WEST ELEVATION
SCALE 1 :50 A3

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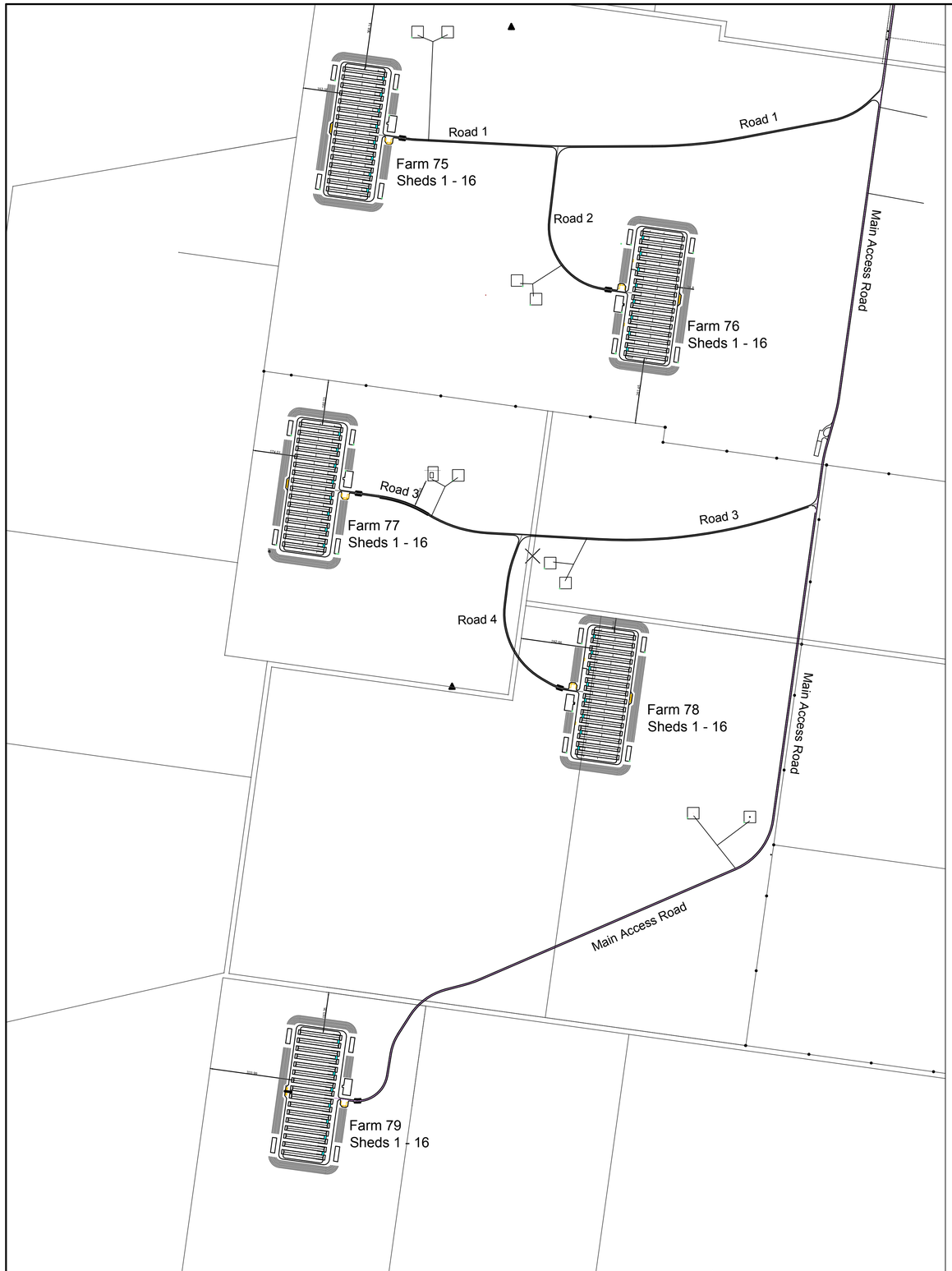
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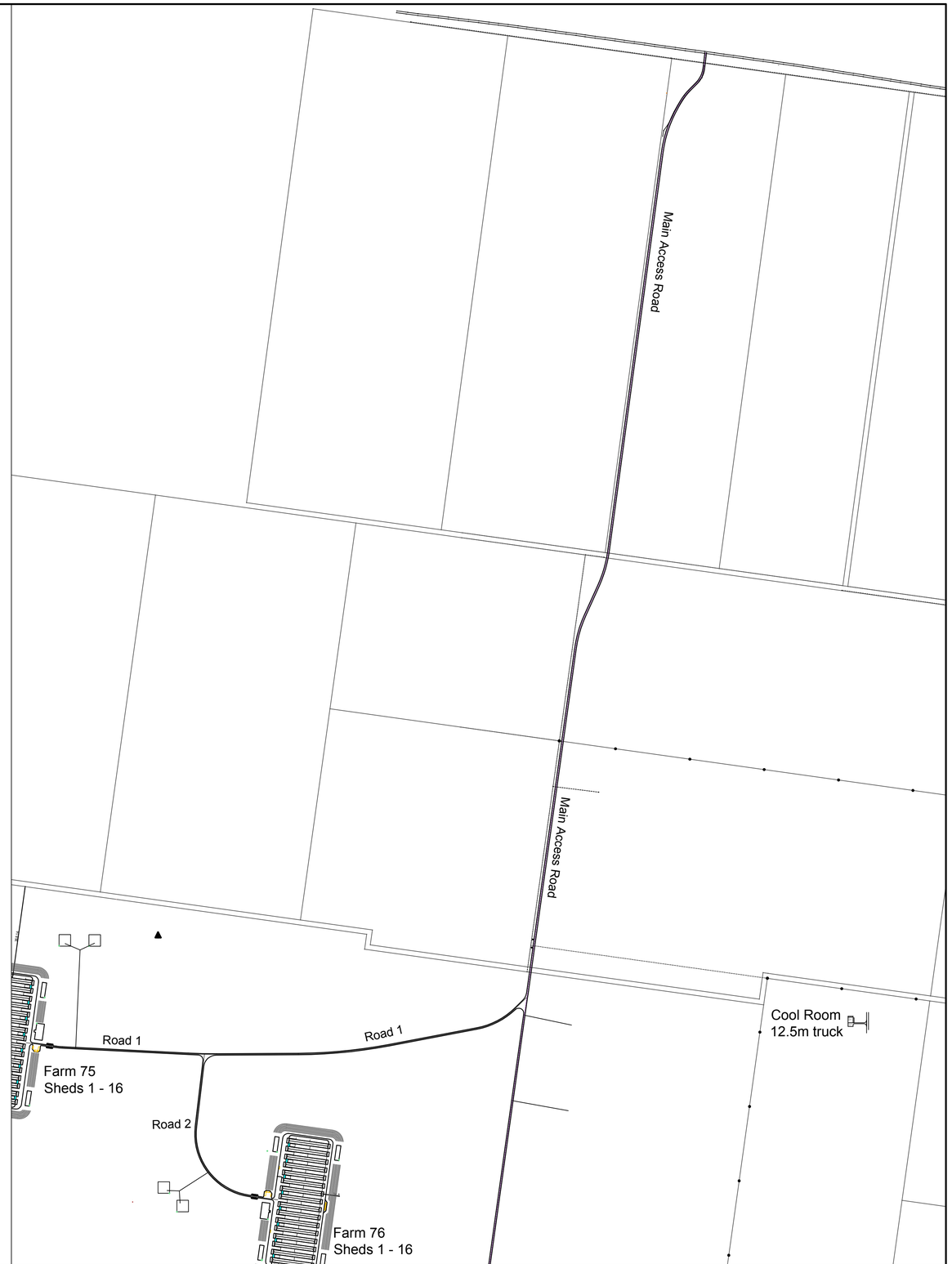
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ITEM	DESCRIPTION	REMARKS
SHEET No: 5 OF 5	TITLE: ELEVATION	SCALE: AS NOTED A3
	PROJECT: BROILER SHED	DATE: 1/08/2014
	CLIENT: PRO.TEN Ltd NARRANDERA LOT 42 STURT HIGHWAY EUROLEY NSW 2700	PLOT DATE
	DRAWN: BS · TRACED: PB · CHECKED: KN · A3	DRAWING NUMBER: S5

PPU Layout, Access Roads, and Cut and Fill





Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	28.04.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Overall Site Plan

Client
ProTen

Scales
1:10000

Client Project No.

Architect / Project Manager

Project Number
15W013

Dwg. No.
C01

Sheet
01 of 76

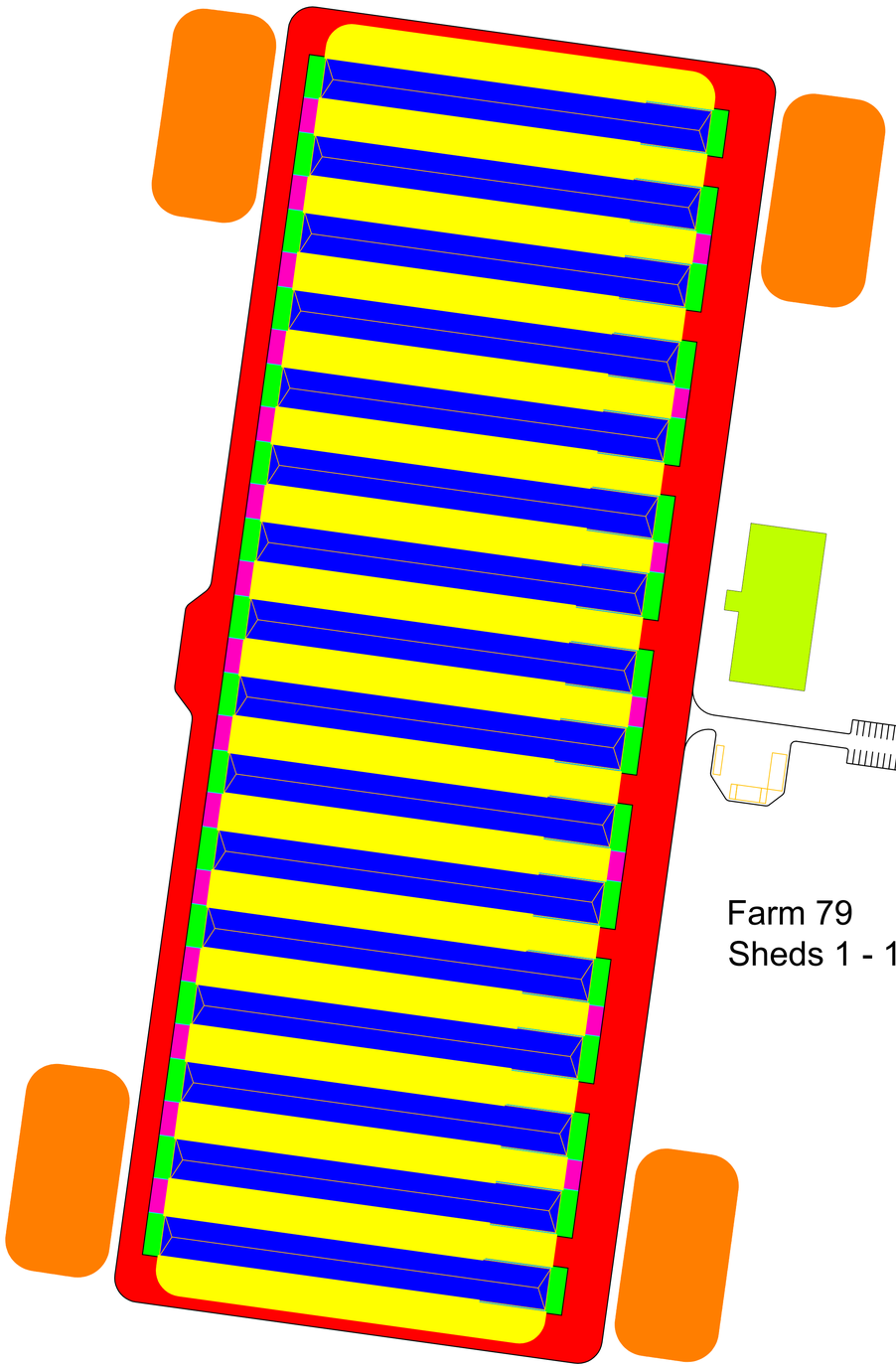
Revision
1

A1 SHEET

0 100mm 200mm 300mm

LEGEND

- Road Pavement
  200mm thick gravel
  Area = 18350m²
- Sheds
  75mm thick concrete
- Swale Drains
- Concrete Slabs 100 thick
- 100mm thick Gravel



Farm 79
Sheds 1 - 16

Area 45,952m²
Area 38,121m²
Area 4,166m²
Area 2,120m²

No topsoil removed
Fill 23,876m³
Cut 1,293m³

50 topsoil removed
Only remove topsoil under buildings 5,363m³
Fill 27,969m³
Cut 827m³

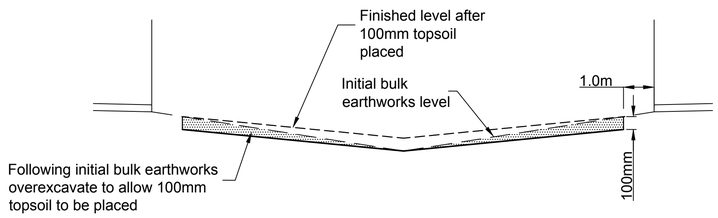
Sheds footprint (1m out from sheds) = 55,232m²
Fill required to replace 50mm topsoil removed 2,762m³
Fill 23,876 + 2,762 = 26,638m³
Cut 827m³

Sheds account for approx. 85% of fill which needs to be compacted to 98% standard. Remaining 15% of fill in swale drains to be compacted to 95% standard)

Area 18,422m³ — 200 roadbase 3,684m³
Fill 1,512m³
Cut 3,308m³

Area 14,124m³ — Cut 28,082m³

Area 2,063m³ — Stripping 206m³
Fill 560m³



SWALE DRAIN BETWEEN SHEDS

Additional excavation following initial bulk earthworks to allow for 100mm of topsoil to be placed

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Farm 79
Sheds 1 - 16 Quantities

Scales: 1:1000

Client Project No.

Project Number: 15W013

Dwg. No.: C03

Sheet: 03 of 76

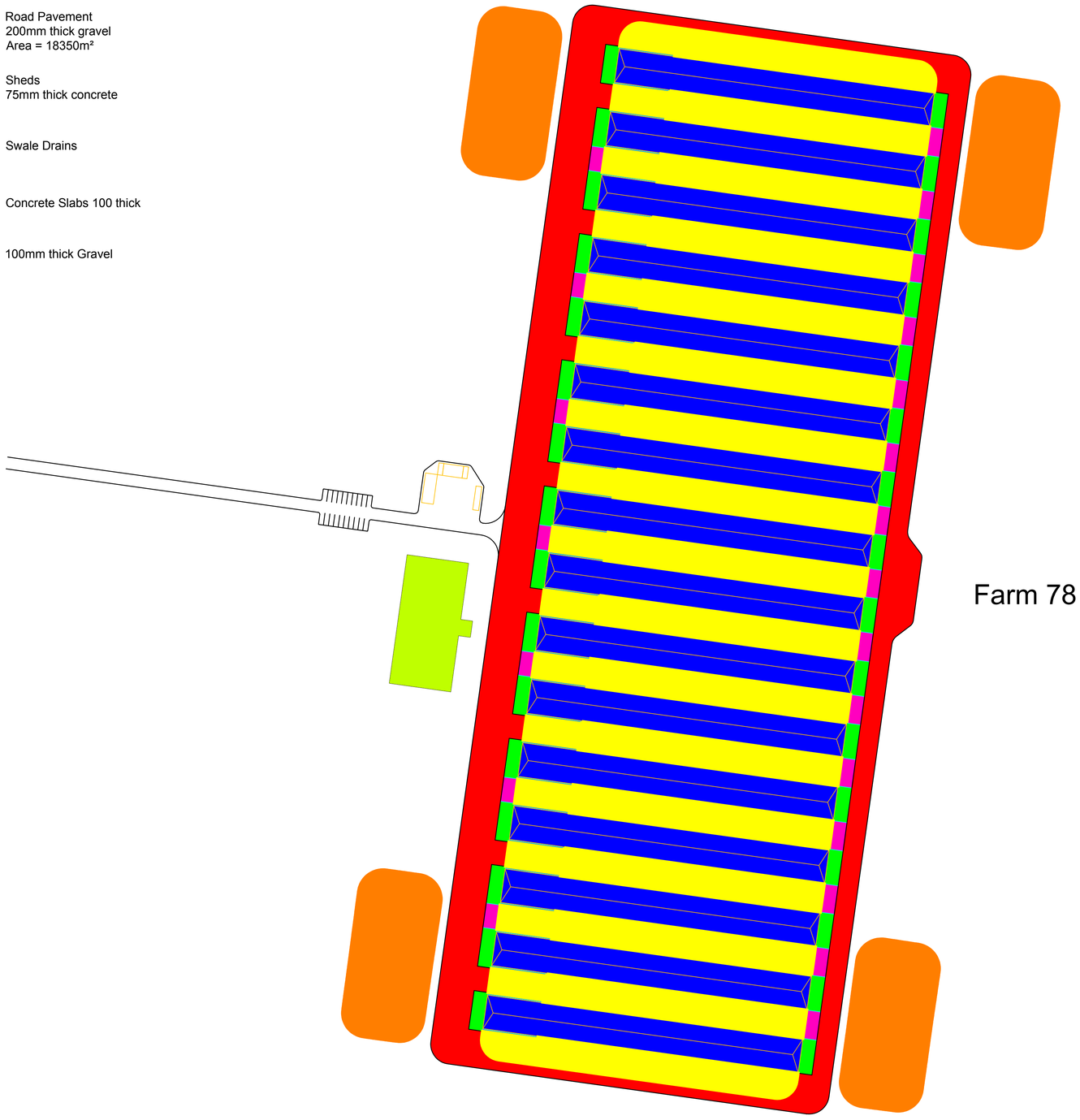
Revision: 1

A1 SHEET

0 100mm 200mm 300mm

LEGEND

- Road Pavement
  200mm thick gravel
  Area = 18350m²
- Sheds
  75mm thick concrete
- Swale Drains
- Concrete Slabs 100 thick
- 100mm thick Gravel



Area 45,952m²

Area 38,121m²

Area 4,166m²

Area 2,120m²

No topsoil removed
Fill 23,576m³
Cut 1,095m³

50 topsoil removed
Only remove topsoil under buildings 5,363m³
Fill 27,693m³
Cut 650m³

Sheds footprint (1m out from sheds) = 55,232m²
Fill required to replace 50mm topsoil removed 2,762m³
Fill 23,576 + 2,762 = 26,338m³
Cut 650m³

Sheds account for approx. 85% of fill which needs to be compacted to 98% standard. Remaining 15% of fill in swale drains to be compacted to 95% standard)

Area 18,422m³ — 100mm topsoil 2,559m³, Fill 2,161m³, Cut 3,064m³

Area 14,124m³ — Cut 28,081m³

Area 2,063m³ — Stripping 206m³, Fill 649m³

Farm 78 Sheds 1 - 16

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager:

Drawing Title: Farm 78
Sheds 1 - 16 Quantities

Scales: 1:1000

Client Project No.:

Project Number: 15W013

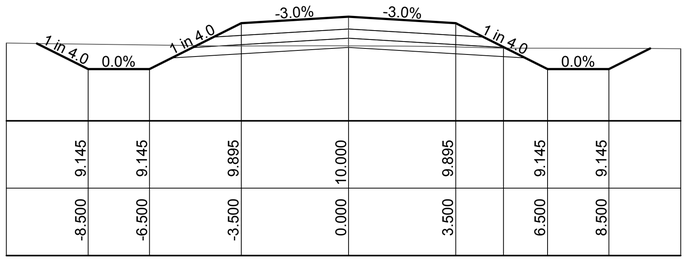
Dwg. No.: C04

Sheet: 04 of 76

Revision: 1

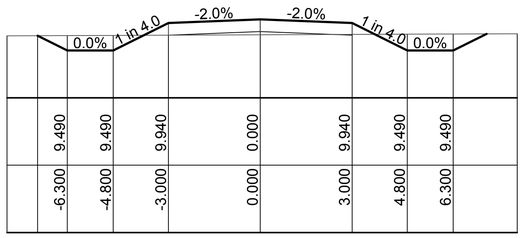
A1 SHEET

0 100mm 200mm 300mm



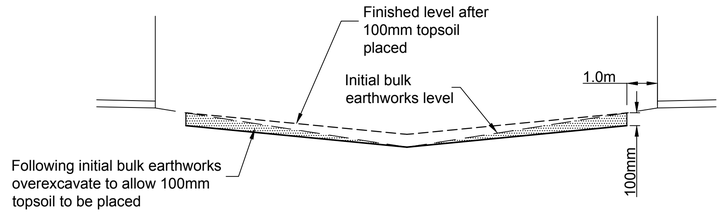
Typical Road Cross from Sturt Highway to first Intersection Ch 0 to Ch 3900

Pavement to consist of 300mm fill compacted in two layers fom material won from table drains and 200mm of Road base Gravel. Through the sand hills (Ch 200 to 800) the top 200mm layer of fill to stabilised with slag lime as per Geotechnical recommendations.



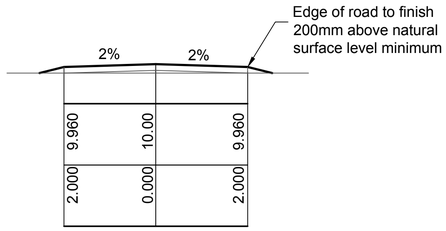
Typical Road Cross for all Internal Roads including main access road from CH 3900 to End

Pavement to consist of 200mm of Road base Gravel.



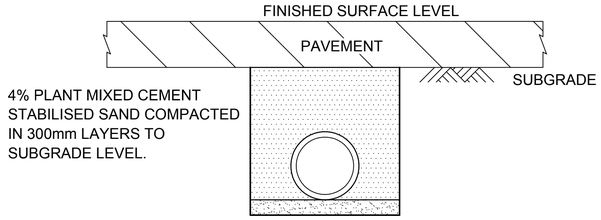
SWALE DRAIN BETWEEN SHEDS

Additional excavation following initial bulk earthworks to allow for 100mm of topsoil to be placed



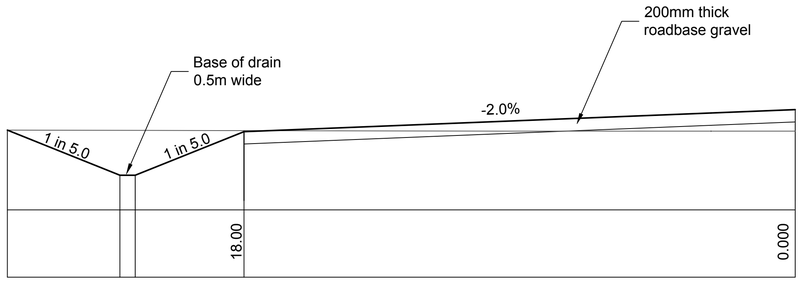
Scale Horizontal 1:100 Vertical 1:100

Typical Road Cross Section to Houses

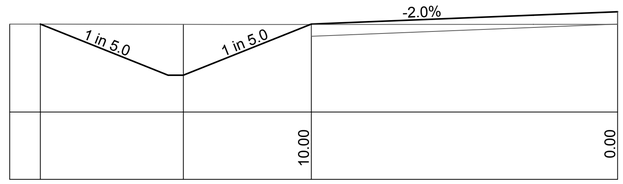


STORMWATER UNDER ROADS

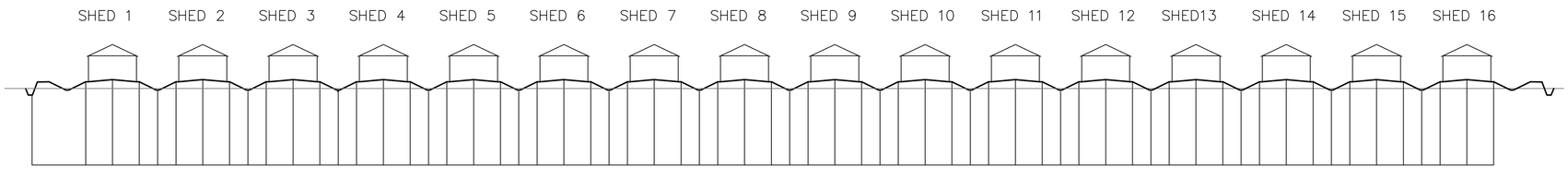
SCALE 1:20



TYPICAL CROSS SECTION RING ROAD AT FRONT



TYPICAL CROSS SECTION RING ROAD AT BACK



TYPICAL SECTION THROUGH SHEDS

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Typical Details

Client: ProTen

Scales: As Shown

Client Project No.:

Architect / Project Manager

Project Number: 15W013

Dwg. No.: C02

Sheet: 02 of 76

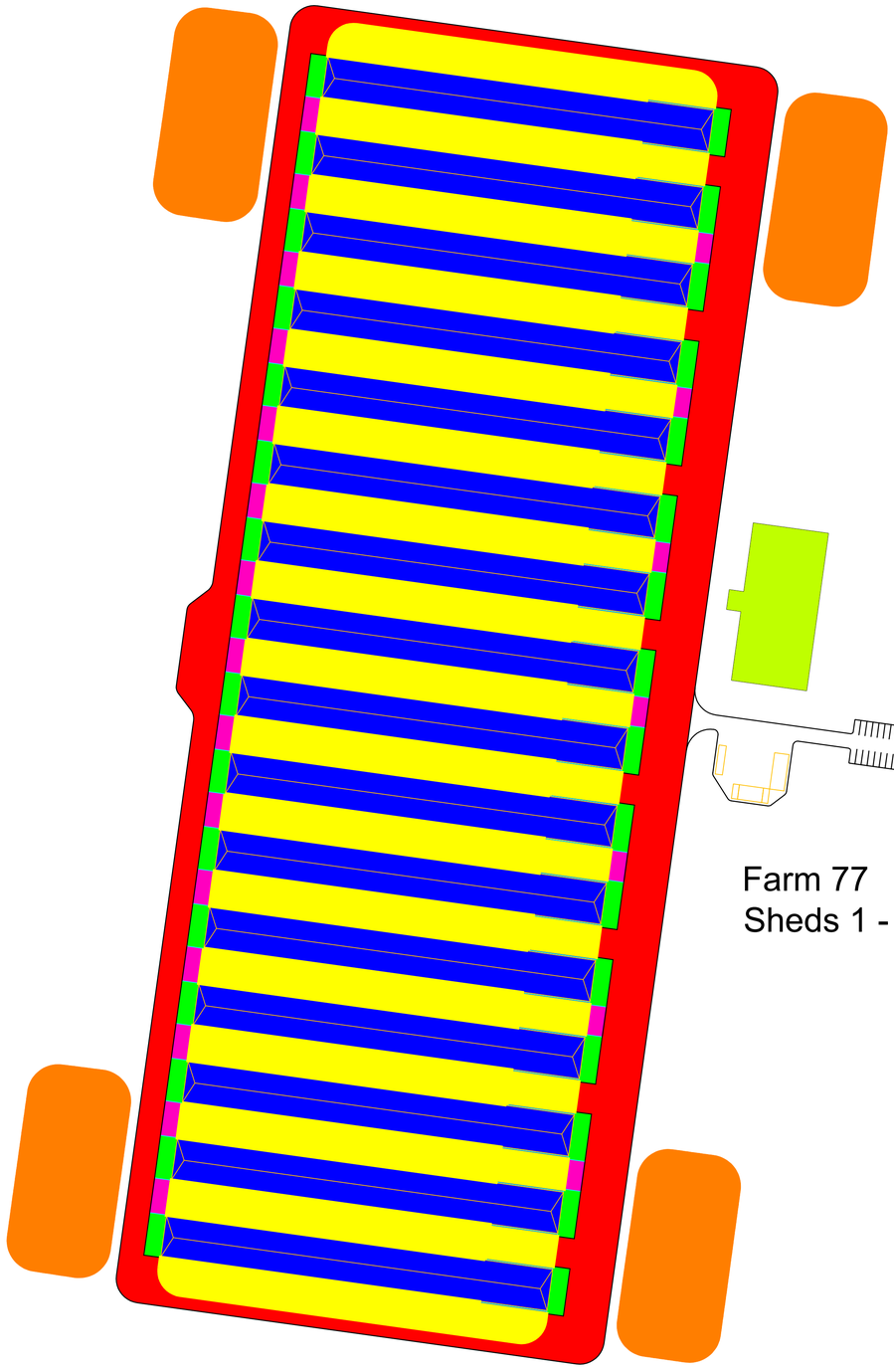
Revision: 1

A1 SHEET

0 100mm 200mm 300mm

LEGEND

- Road Pavement
  200mm thick gravel
  Area = 18350m²
- Sheds
  75mm thick concrete
- Swale Drains
- Concrete Slabs 100 thick
- 100mm thick Gravel



Area 45,952m²
Area 38,121m²
Area 4,166m²
Area 2,120m²

No topsoil removed
Fill 23,636m³
Cut 1,536m³

50 topsoil removed
Only remove topsoil under buildings 5,363m³
Fill 27,68m³
Cut 1,013m³

Sheds footprint (1m out from sheds) = 55,232m²
Fill required to replace 50mm topsoil removed 2,762m³
Fill 23,636 + 2,762 = 26,398m³
Cut 1,013m³

Sheds account for approx. 85% of fill which needs to be compacted to 98% standard. Remaining 15% of fill in swale drains to be compacted to 95% standard)

Area 18,422m³

100mm topsoil 2,664m³
200 roadbase 3,684m³
Fill 2,882m³
Cut 4,938m³

Area 14,124m³ — Cut 28,045m³

Area 2,063m³ — Stripping 206m³, Fill 530m³

Farm 77
Sheds 1 - 16

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 77
Sheds 1 - 16 Quantities

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

Dwg. No.: C05

Sheet: 05 of 76

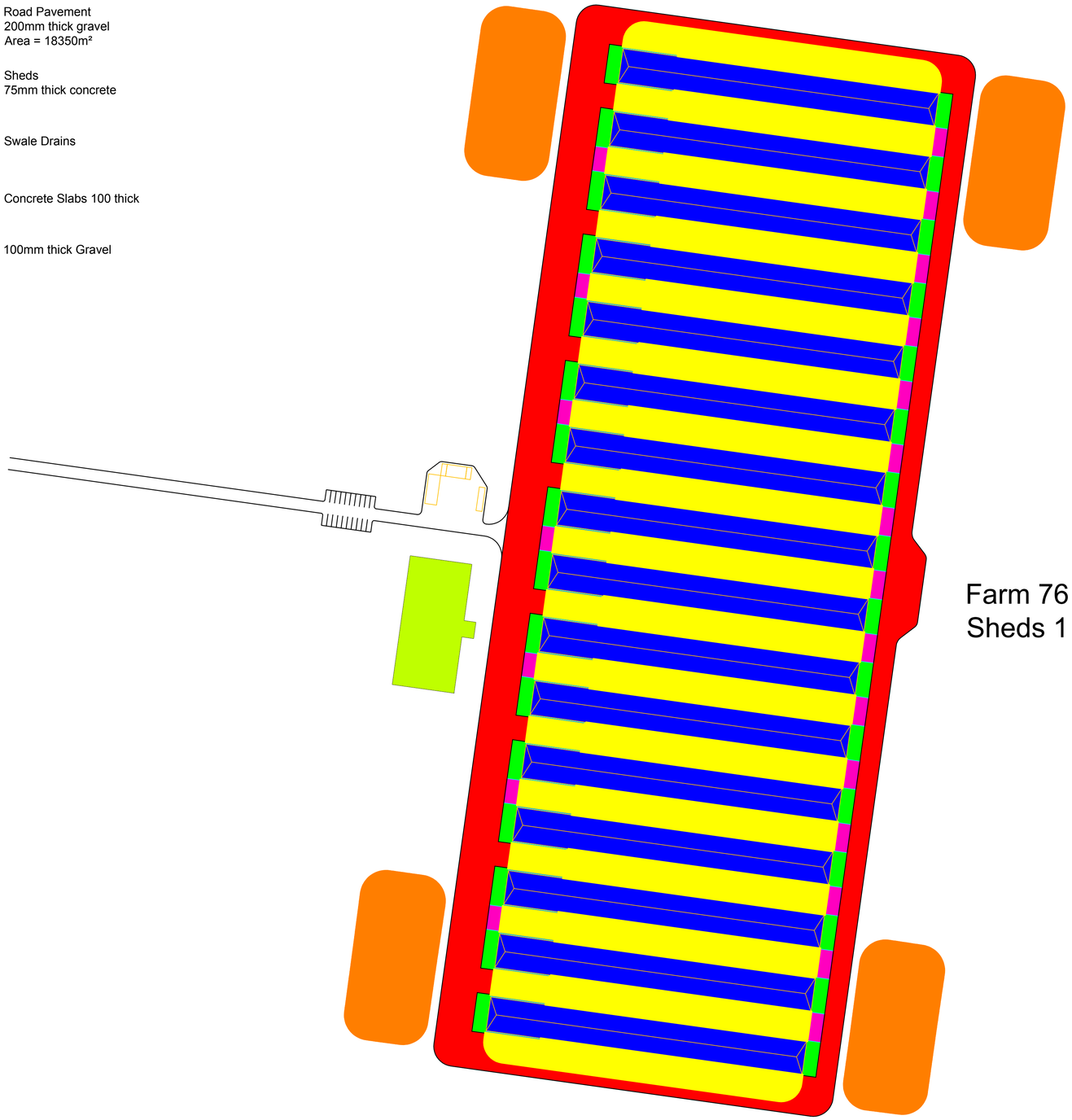
Revision: 1

A1 SHEET

0 100mm 200mm 300mm

LEGEND

- Road Pavement
  200mm thick gravel
  Area = 18350m²
- Sheds
  75mm thick concrete
- Swale Drains
- Concrete Slabs 100 thick
- 100mm thick Gravel



Farm 76
Sheds 1 - 16

Area 45,952m²

Area 38,121m²

Area 4,166m²

Area 2,120m²

No topsoil removed
Fill 23,429m³
Cut 1,732m³

50 topsoil removed
Only remove topsoil under buildings 5,363m³
Fill 27,432m³
Cut 1,181m³

Sheds footprint (1m out from sheds) = 55,232m²
Fill required to replace 50mm topsoil removed 2,762m³
Fill 23,429 + 2,762 = 26,191m³
Cut 1,181m³

Sheds account for approx. 85% of fill which needs to be compacted to 98% standard. Remaining 15% of fill in swale drains to be compacted to 95% standard)

Area 18,422m³

100mm topsoil 2,492m³
200 roadbase 3,684m³
Fill 1,673m³
Cut 3,299m³

Area 14,124m³

Cut 28,047m³

Area 2,063m³

Stripping 206m³
Fill 557m³

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 76
Sheds 1 - 16 Quantities

Client: ProTen

Scales: 1:1000

Client Project No.

Architect / Project Manager

Project Number: 15W013

Dwg. No.: C06

Sheet: 06 of 76

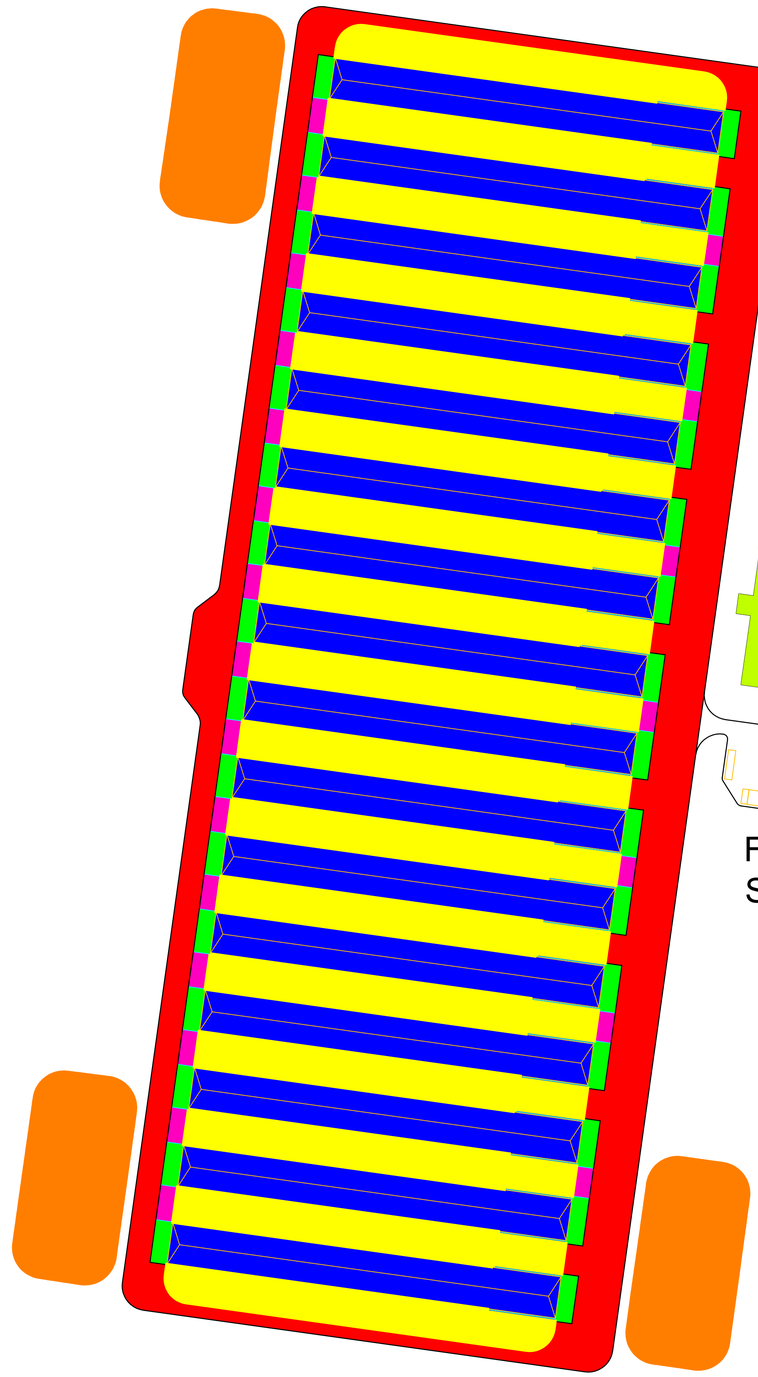
Revision: 1

A1 SHEET

0 100mm 200mm 300mm

LEGEND

- Road Pavement
  200mm thick gravel
  Area = 18350m²
- Sheds
  75mm thick concrete
- Swale Drains
- Concrete Slabs 100 thick
- 100mm thick Gravel



Farm 75
Sheds 1 - 16

Area 45,952m²
Area 38,121m²
Area 4,166m²
Area 2,120m²

No topsoil removed
Fill 23,295m³
Cut 1,803m³

50 topsoil removed
Only remove topsoil under buildings 5,363m³
Fill 27,285m³
Cut 1,241m³

Sheds footprint (1m out from sheds) = 55,232m²
Fill required to replace 50mm topsoil removed 2,762m³
Fill 23,295 + 2,762 = 26,638m³
Cut 1,241m³

Sheds account for approx. 85% of fill which needs to be compacted to 98% standard. Remaining 15% of fill in swale drains to be compacted to 95% standard)

Area 18,422m³
100mm topsoil 2,497m³
200 roadbase 3,684m³
Fill 1,668m³
Cut 3,471m³

Area 14,124m³
Cut 28,041m³

Area 2,063m³
Stripping 206m³
Fill 557m³

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 75
Sheds 1 - 16 Quantities

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

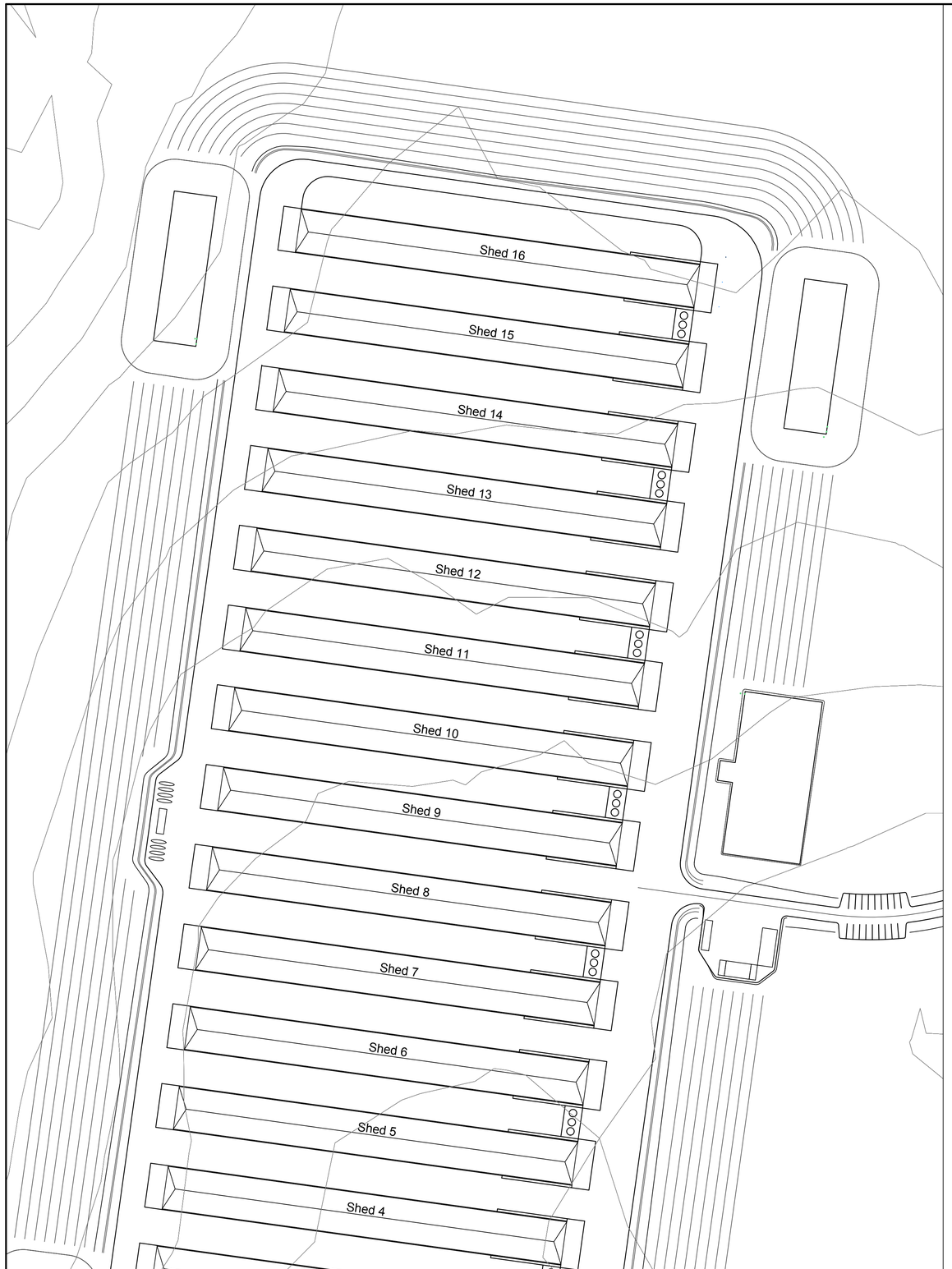
Dwg. No.: C07

Sheet: 07 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm





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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

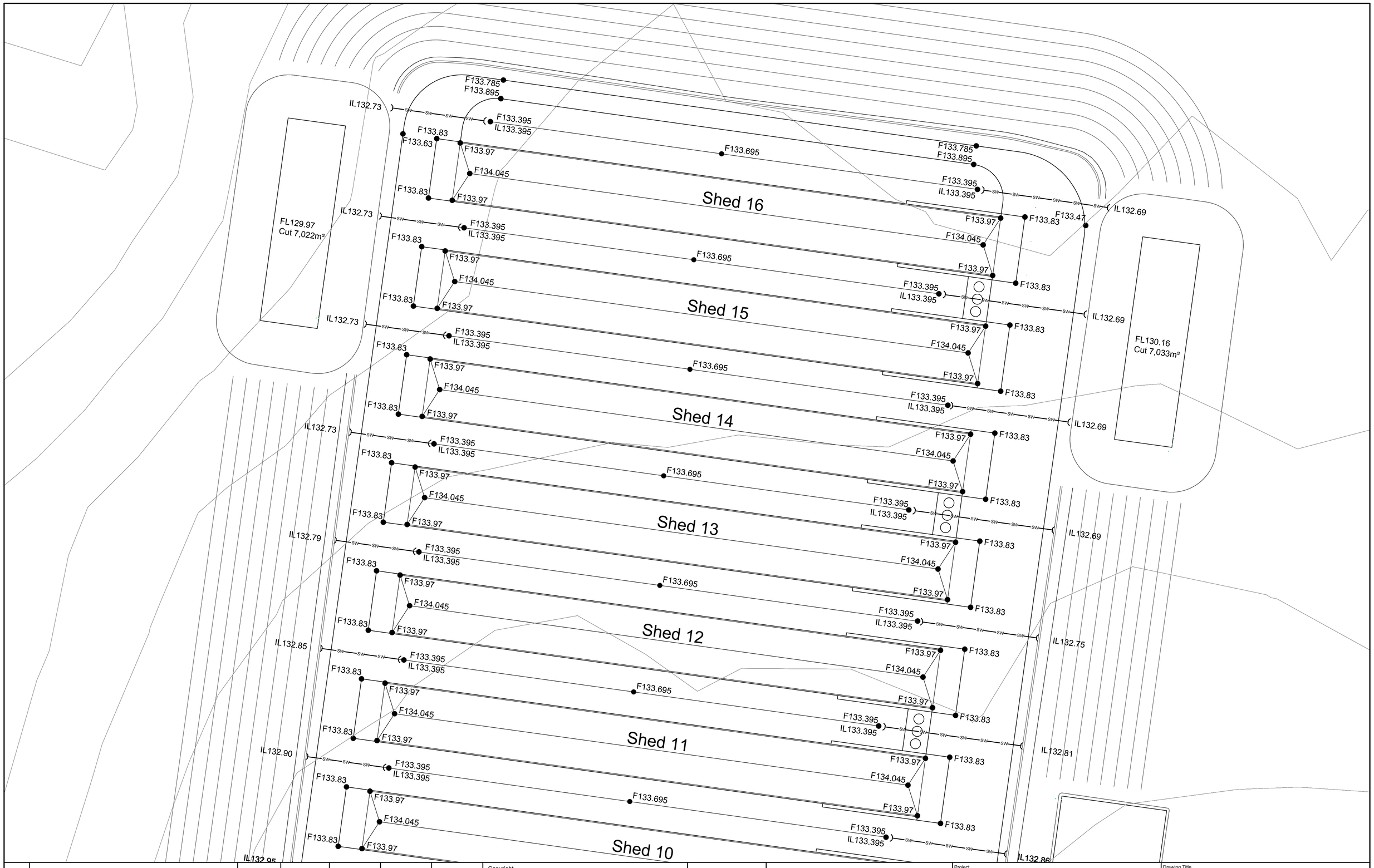
Drawing Title
Farm 79
Sheds 1-16 Plan

Scales	Client Project No.	
1:1000		

Project Number	Dwg. No.	Sheet	Revision
15W013	C08	08 of 76	1

A1 SHEET

0 100mm 200mm 300mm



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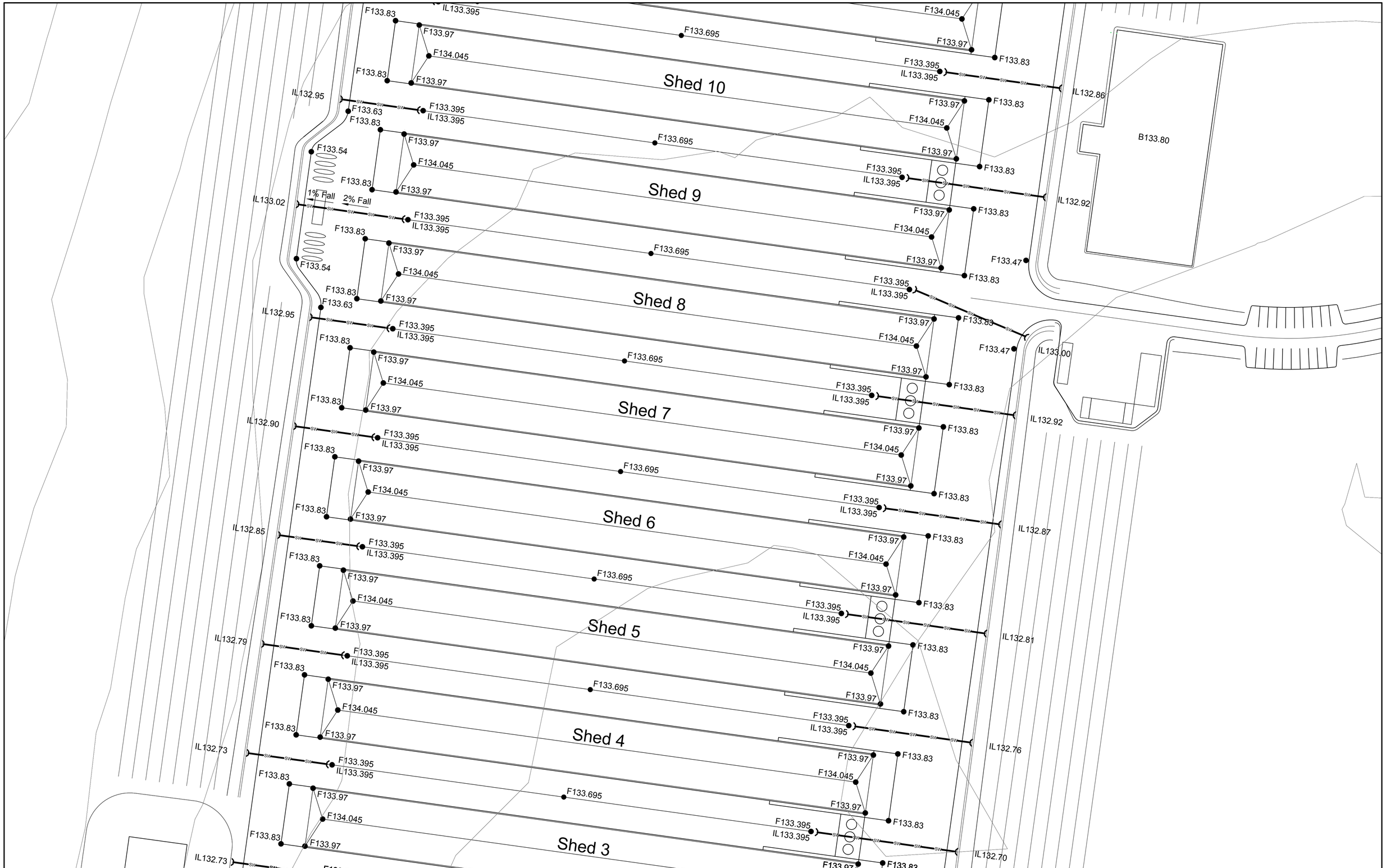
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Project	ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700
Drawing Title	Farm 79 Sheds 1-16 Plan
Client	ProTen
Architect / Project Manager	
Scales	1:500
Client Project No.	
Project Number	15W013
Dwg. No.	C09
Sheet	09 of 76
Revision	1

0 100mm 200mm 300mm

A1 SHEET



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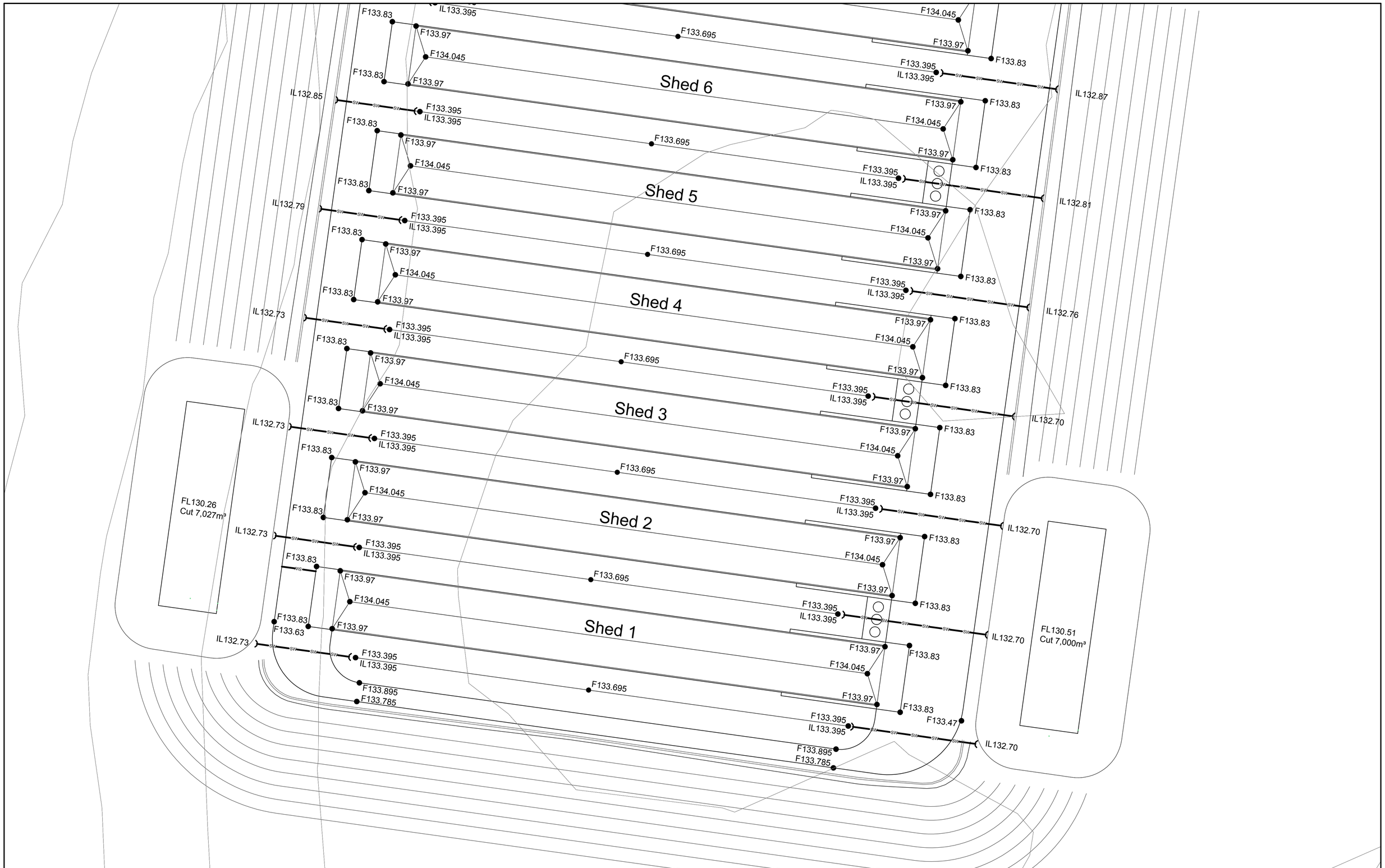
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Project	ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700
Drawing Title	Farm 79 Sheds 1-16 Plan
Client	ProTen
Scales	1:500
Client Project No.	
Architect / Project Manager	
Project Number	15W013
Dwg. No.	C10
Sheet	10 of 76
Revision	1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 79
Sheds 1 -16 Plan

Client
ProTen

Scales
1:500

Client Project No.

Architect / Project Manager

Project Number
15W013

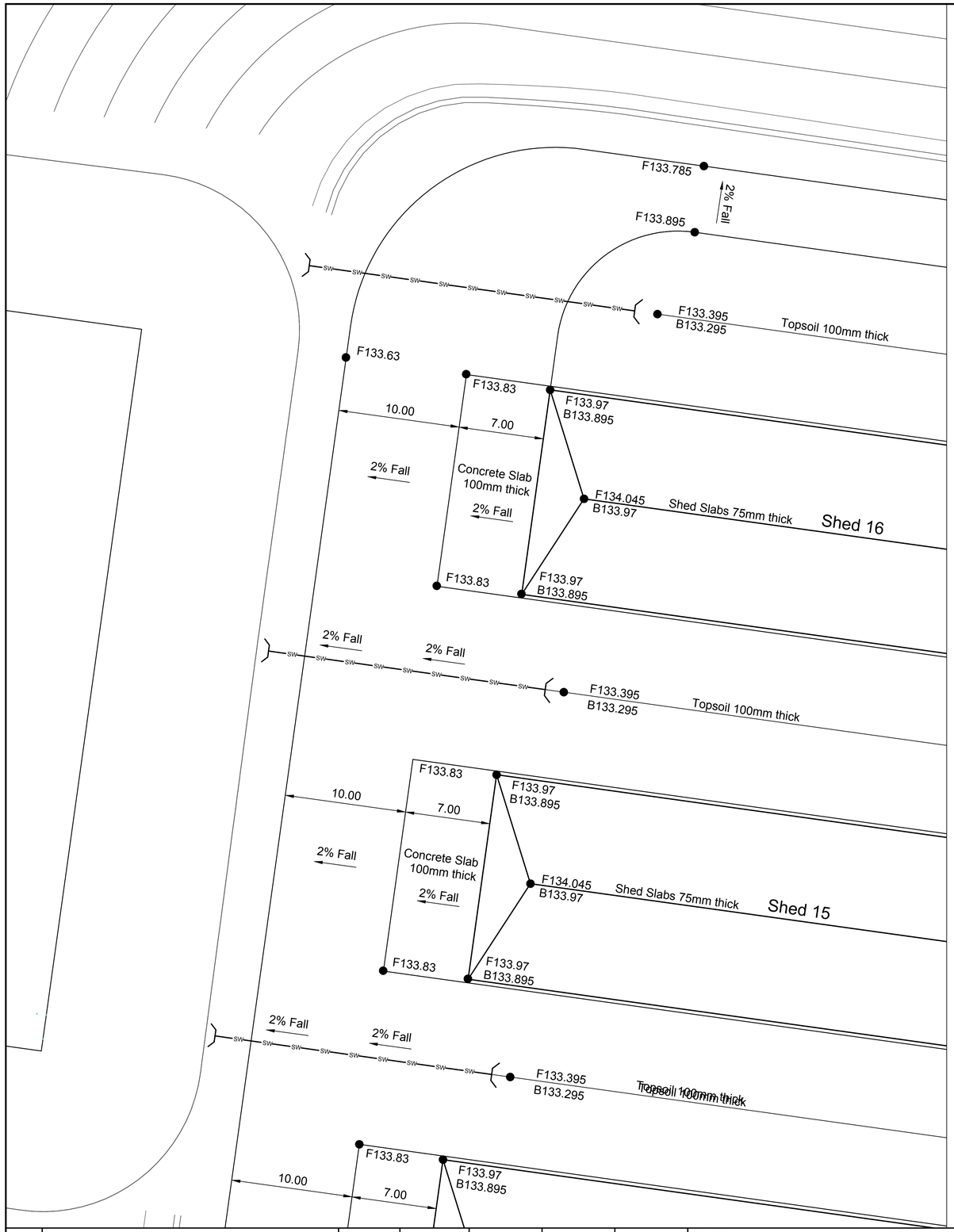
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C11

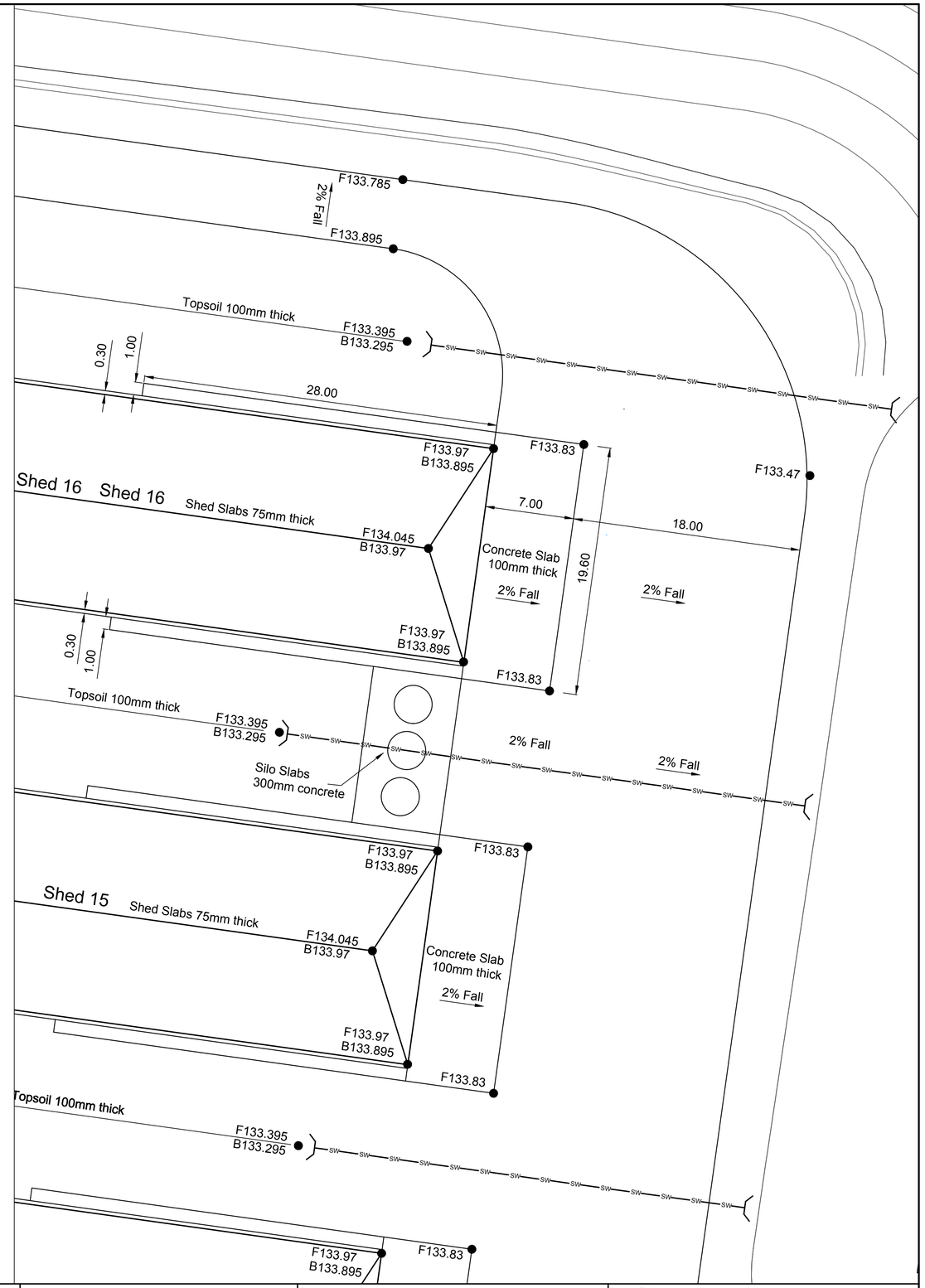
Sheet
11 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm





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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Farm 79
Sheds 1-16 Plan

Scales: 1:200

Client Project No.

Project Number: 15W013

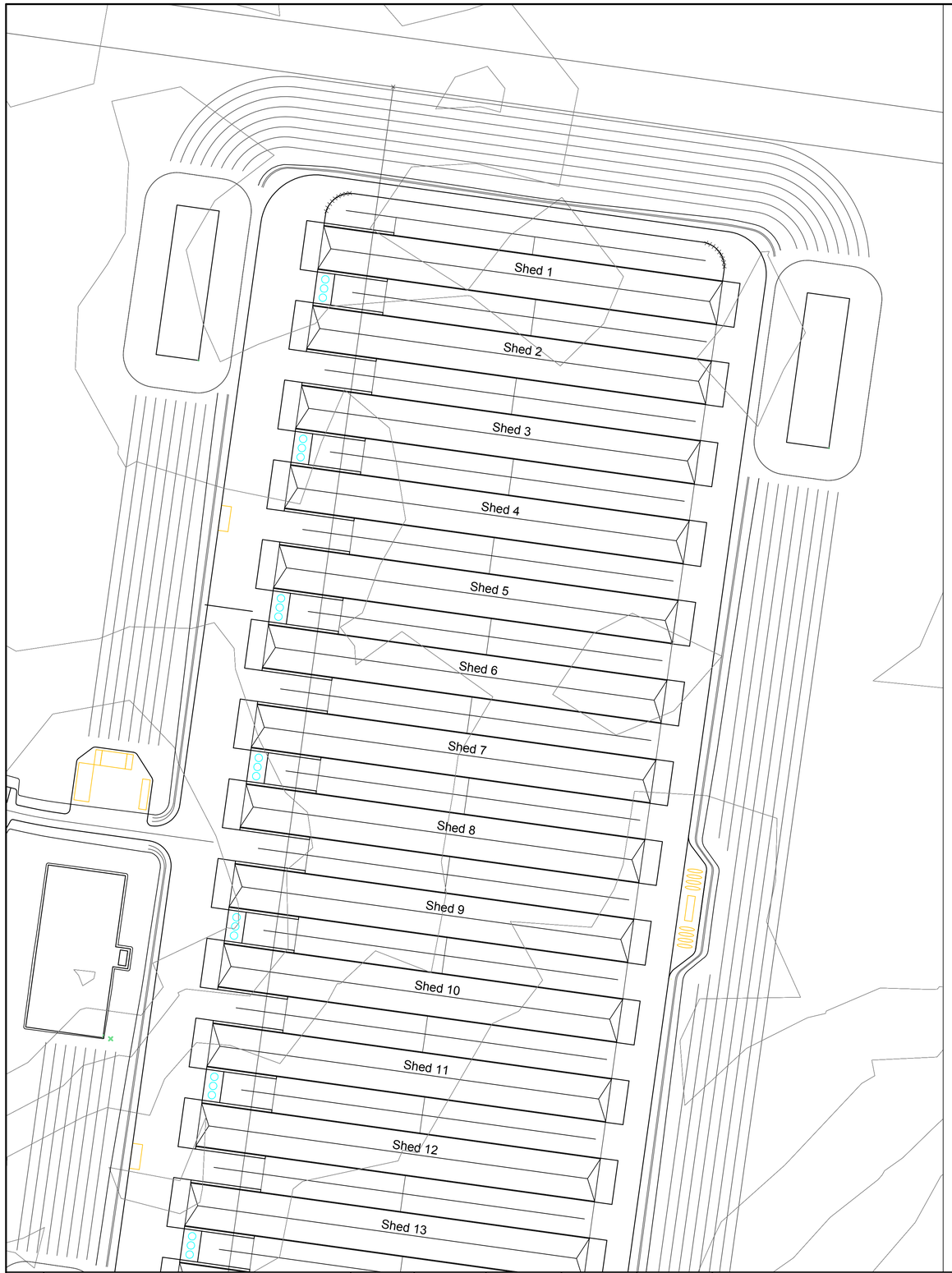
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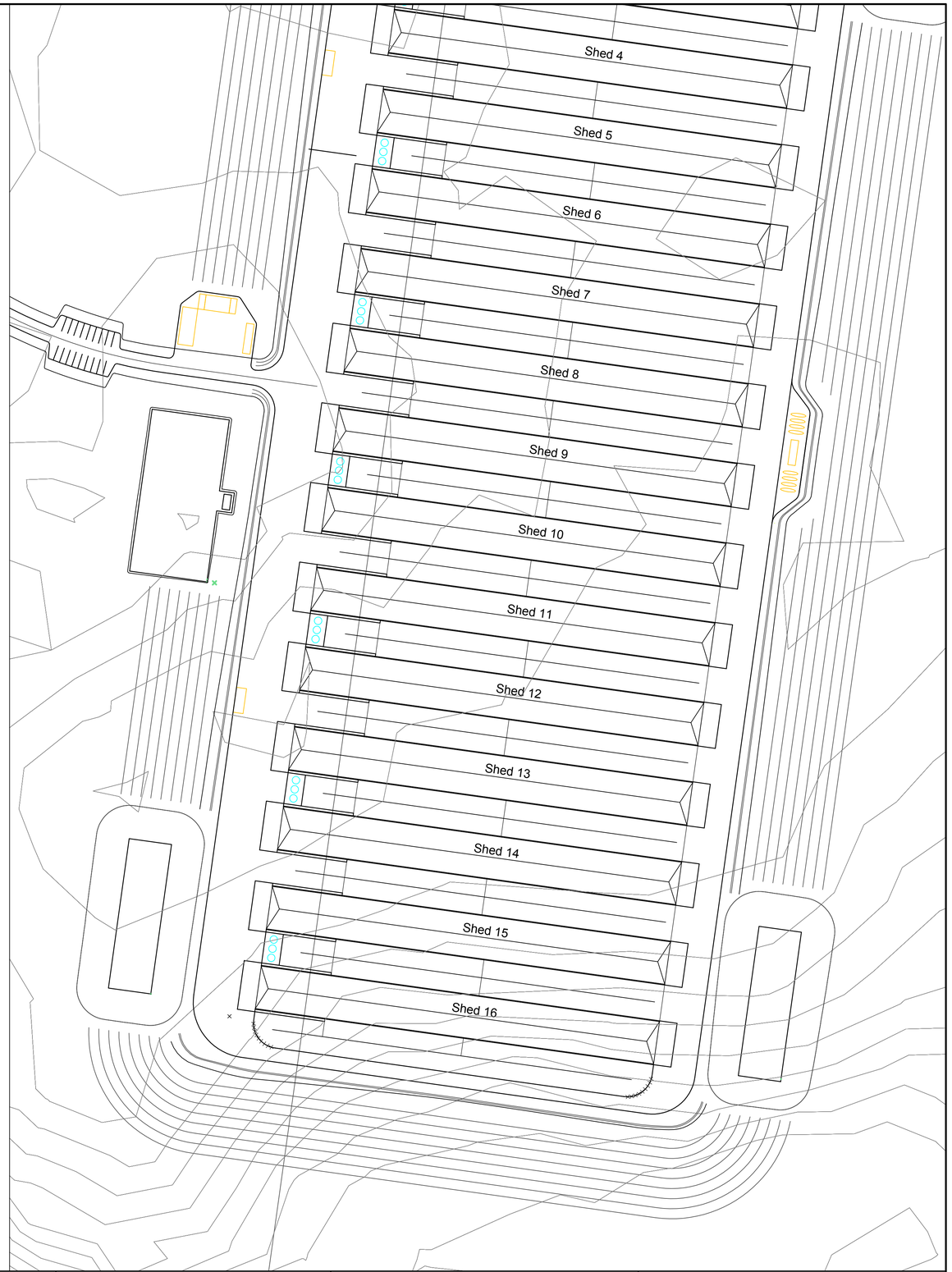
Sheet: 12 or 76

Revision: 1

A1 SHEET

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 78
Sheds 1-16 Plan

Scales
1:1000

Client Project No.

Project Number
15W013

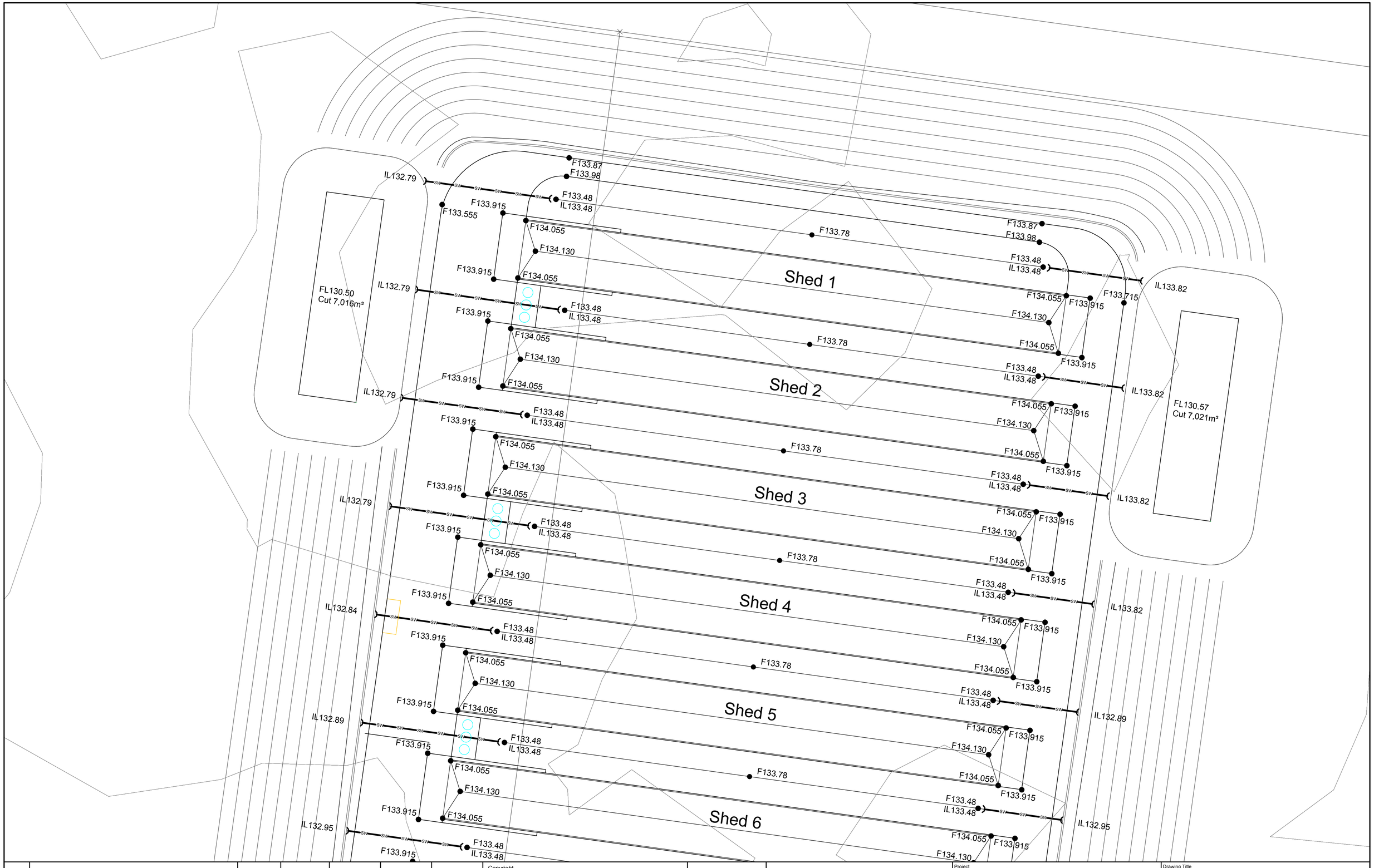
Dwg. No.
C13

Sheet
13 of xx

Revision
1

0 100mm 200mm 300mm

A1 SHEET



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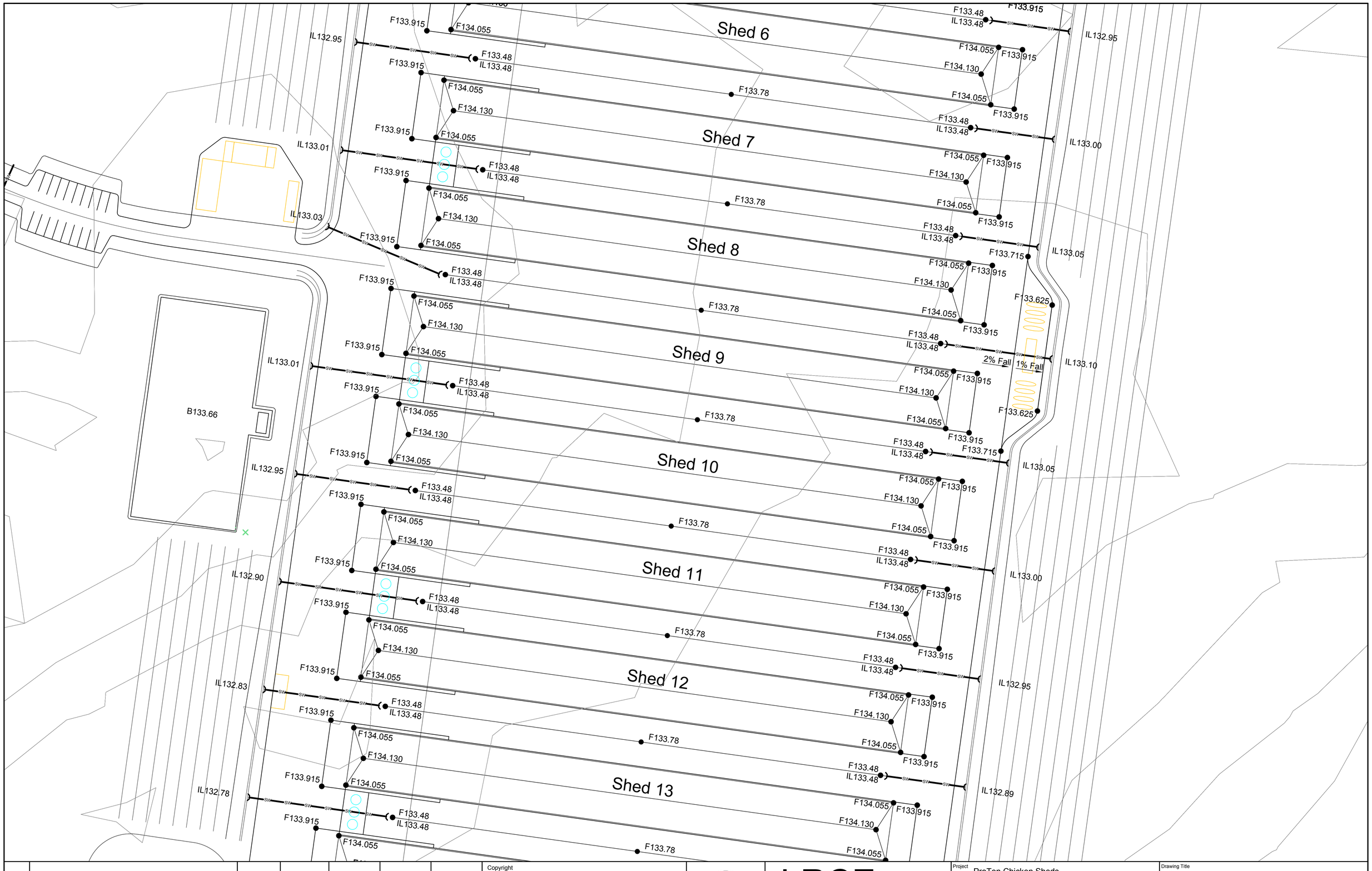
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Project	ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700
Drawing Title	Farm 78 Sheds 1-16 Plan
Client	ProTen
Scales	1:500
Client Project No.	
Architect / Project Manager	
Project Number	15W013
Dwg. No.	C14
Sheet	14 of 76
Revision	1

0 100mm 200mm 300mm

A1 SHEET



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PH: (02) 6921 1877
FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds, ProTen Narrandera, Lot 42, Sturt Highway, Euroley NSW 2700

Drawing Title: Farm 78 Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

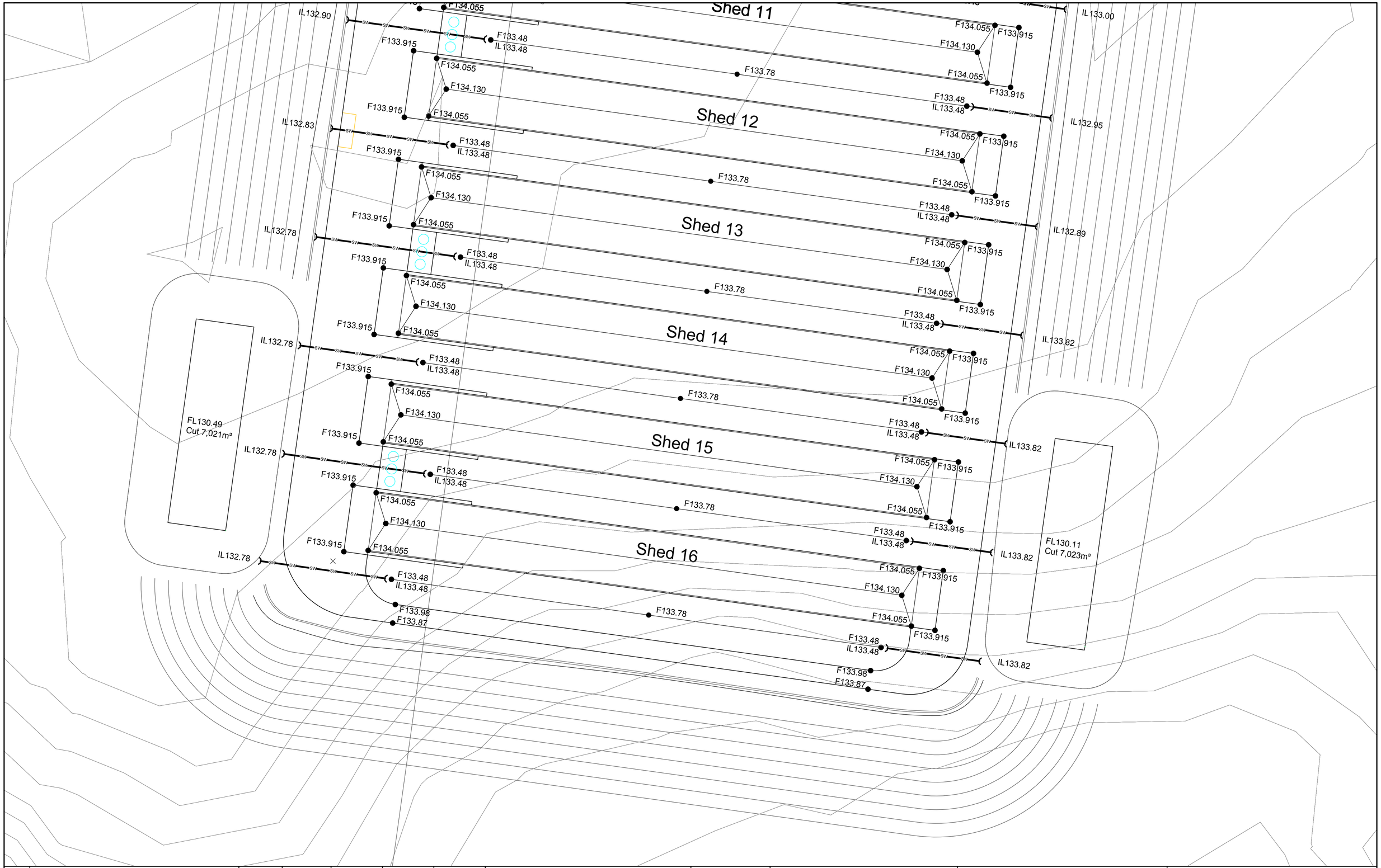
Dwg. No.: C15

Sheet: 15 of 76

Revision: 1

A1 SHEET

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EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 78
Sheds 1-16 Plan

Scales
1:500

Client Project No.

Project Number
15W013

Dwg. No.
C16

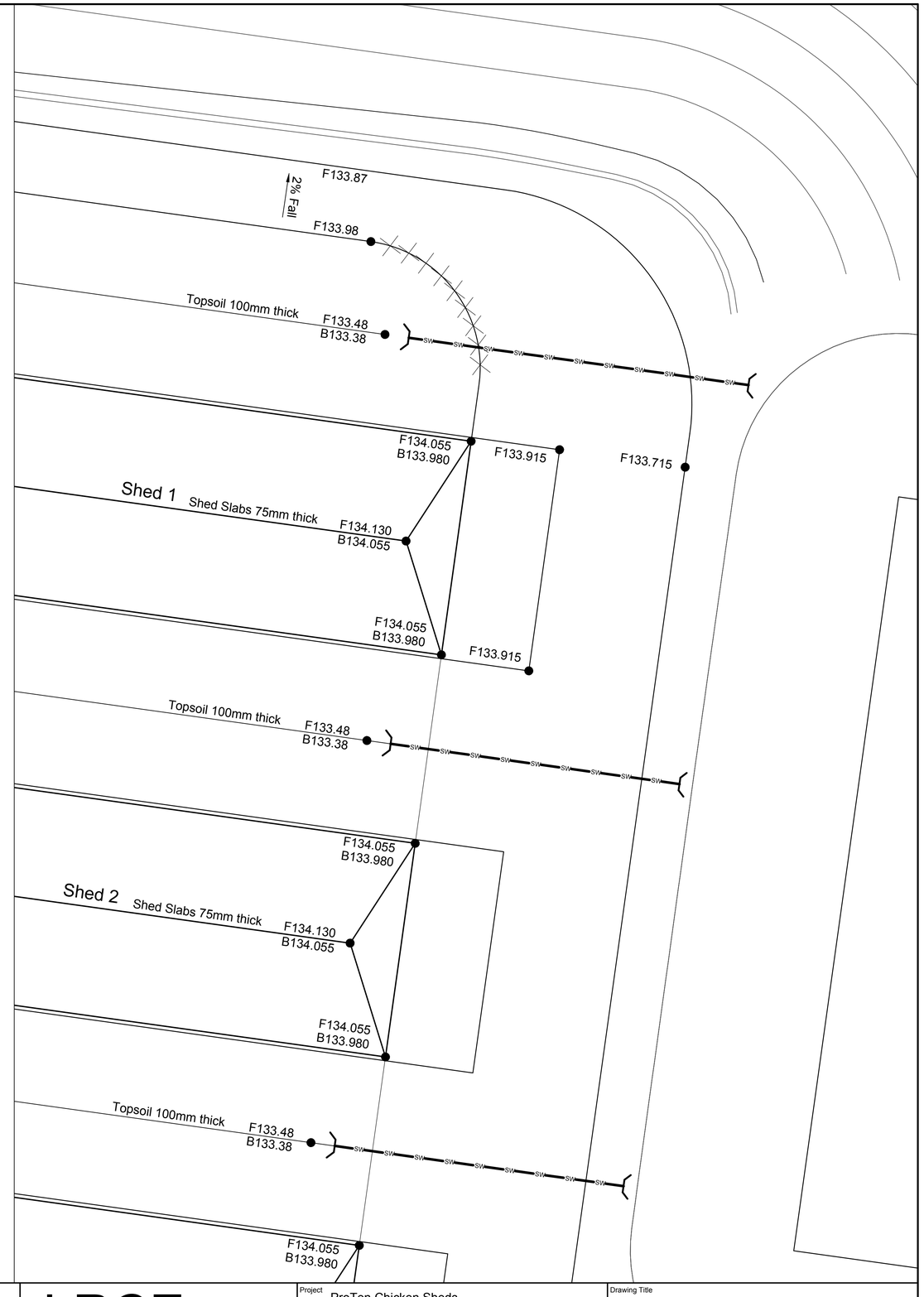
Sheet
16 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm





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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 78
Sheds 1-16 Plan

Client
ProTen

Scales
1:200

Client Project No.

Architect / Project Manager

Project Number
15W013

Dwg. No.
C17

Sheet
17 or 76

Revision
1

0 100mm 200mm 300mm

A1 SHEET





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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 77
Sheds 1-16 Plan

Scales
1:1000

Client Project No.

Project Number
15W013

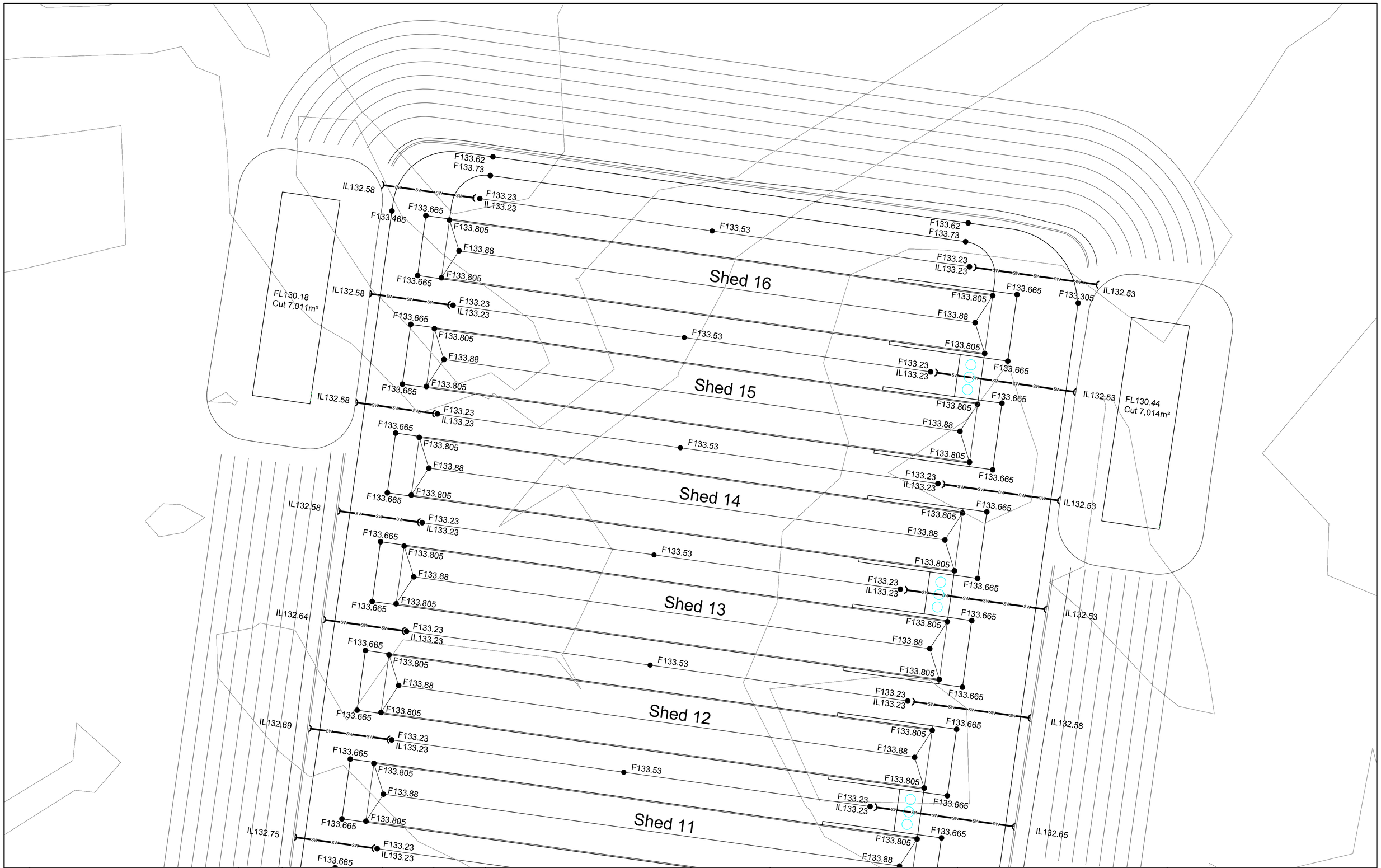
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C18

Sheet
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Revision
1

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A1 SHEET



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 77
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

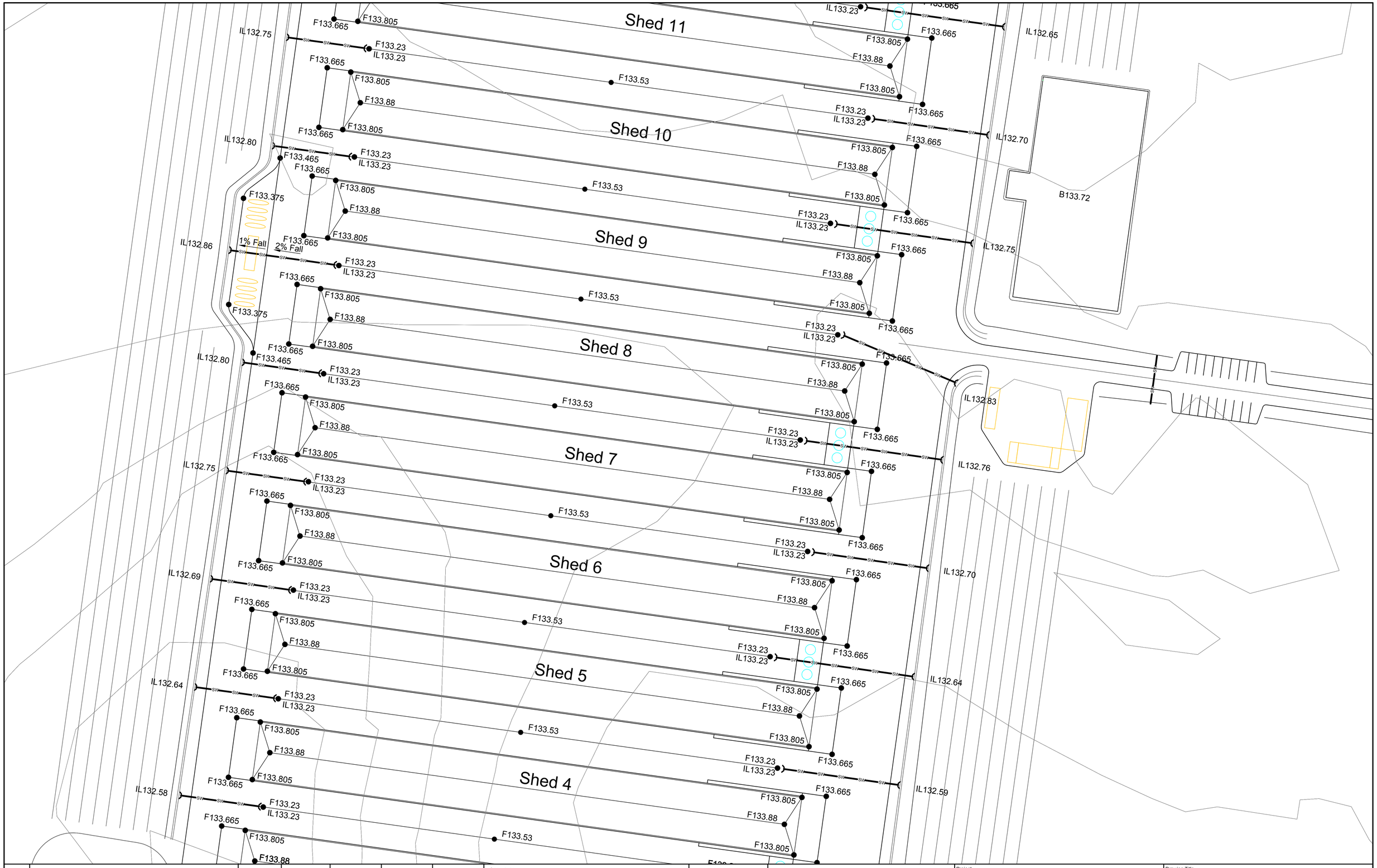
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Sheet: 19 of 76

Revision: 1

A1 SHEET

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 77
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager

Project Number: 15W013

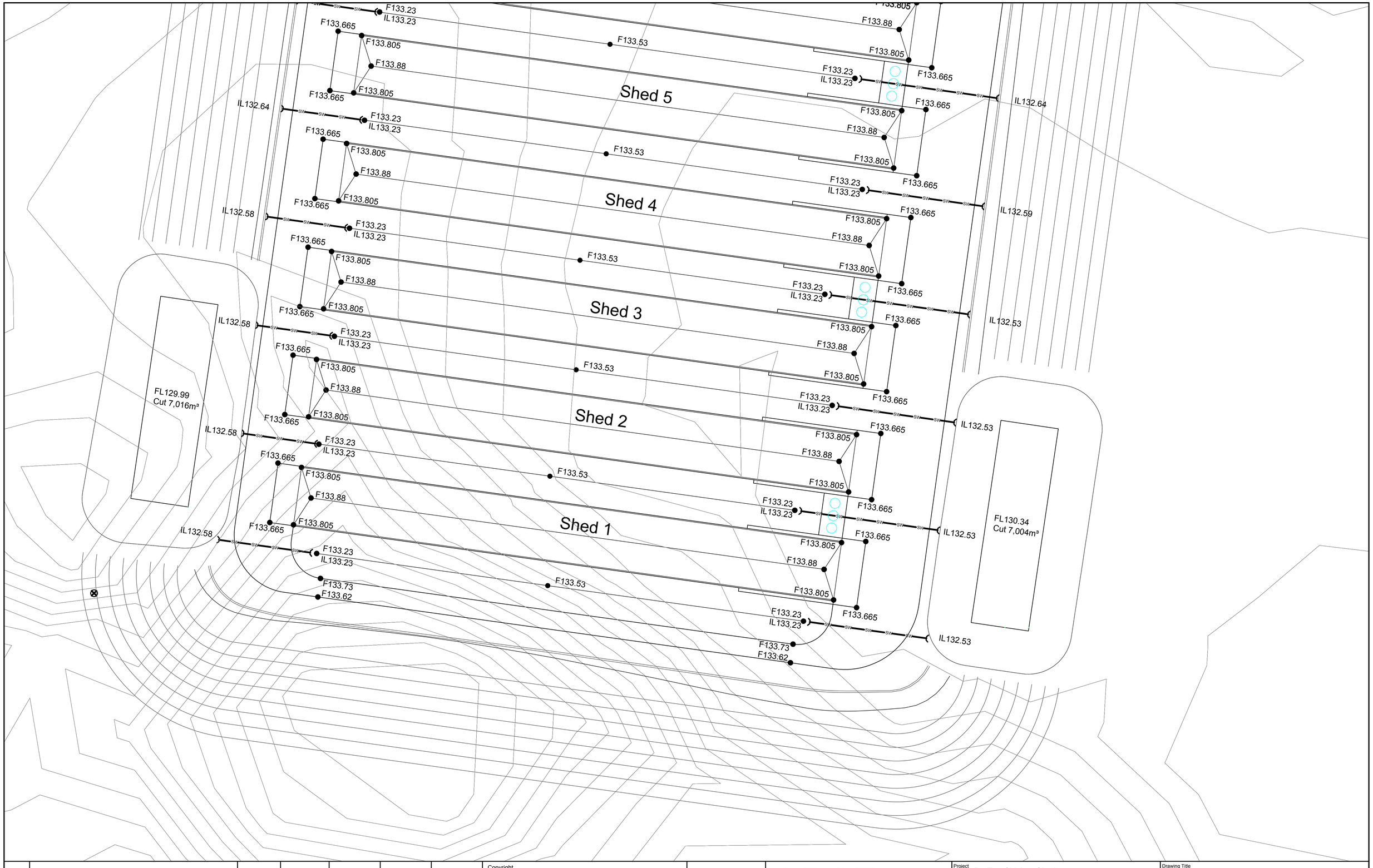
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Sheet: 20 of 76

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A1 SHEET

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 77
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager

Project Number: 15W013

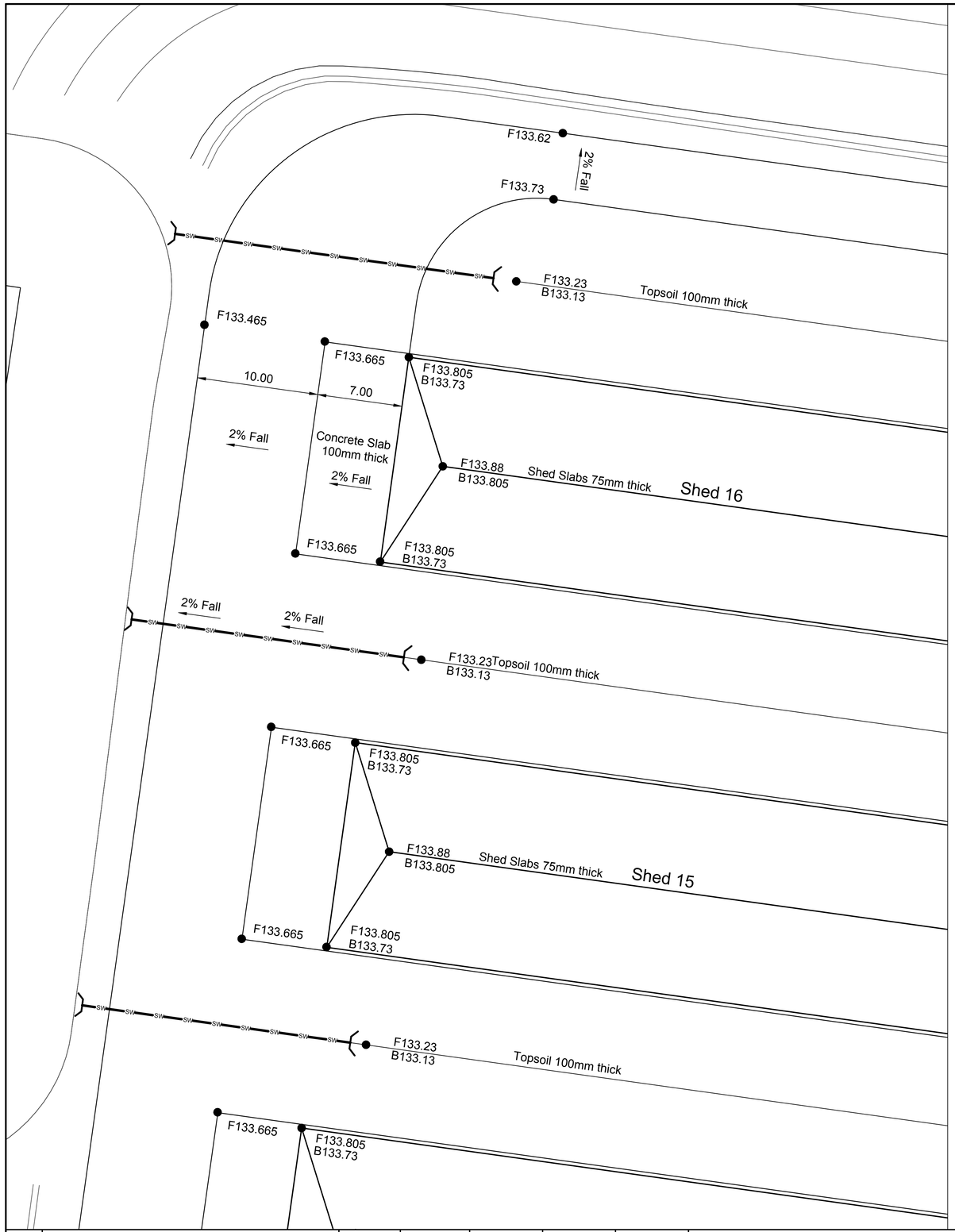
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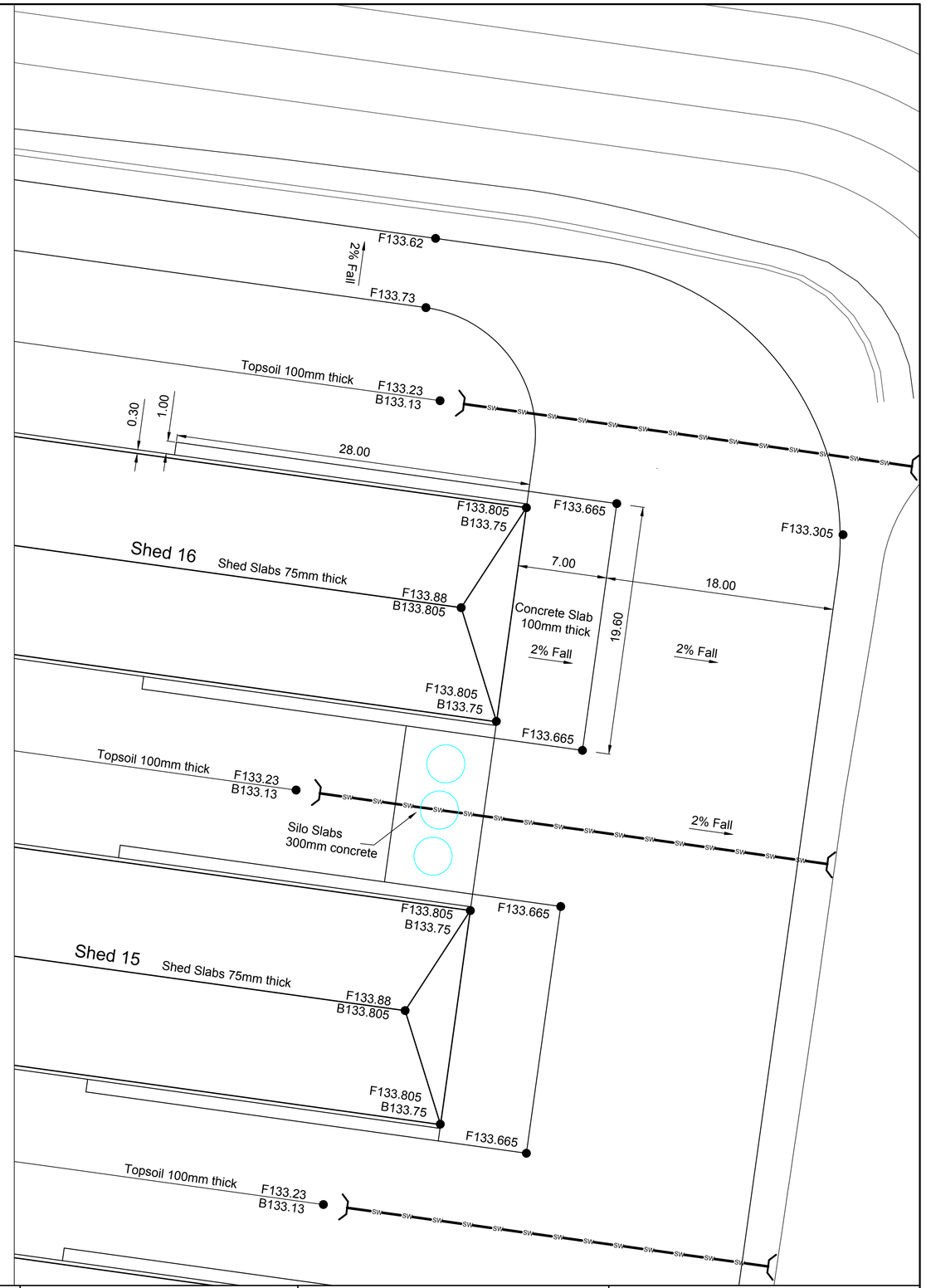
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Revision: 1

A1 SHEET

0 100mm 200mm 300mm





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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 77
Sheds 1-16 Plan

Scales
1:200

Client Project No.

Project Number
15W013

Dwg. No.
C22

Sheet
22 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm





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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 76
Sheds 1-16 Plan

Scales
1:1000

Client Project No.

Project Number
15W013

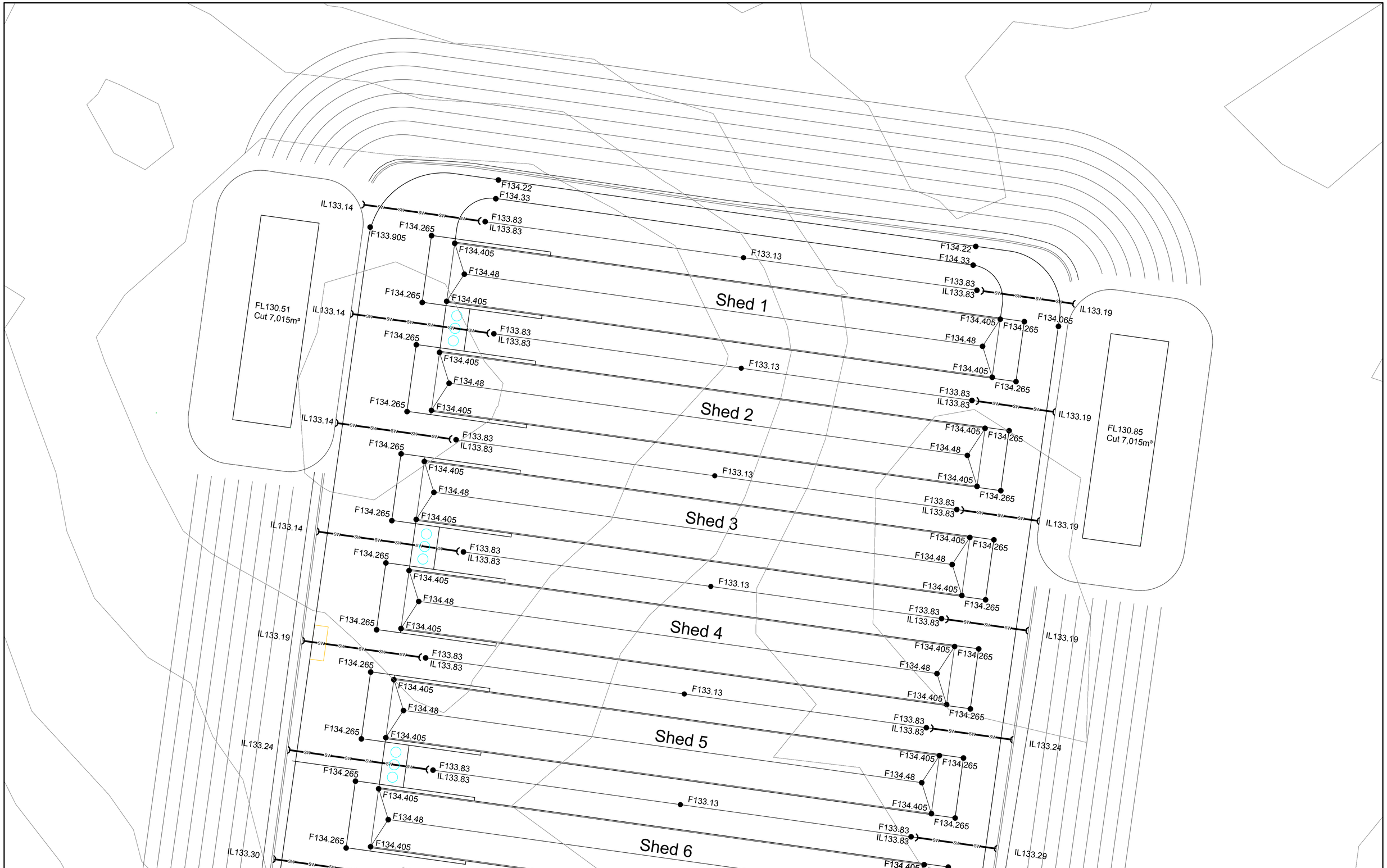
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C23

Sheet
23 of 76

Revision
1

A1 SHEET

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EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 76
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager

Project Number: 15W013

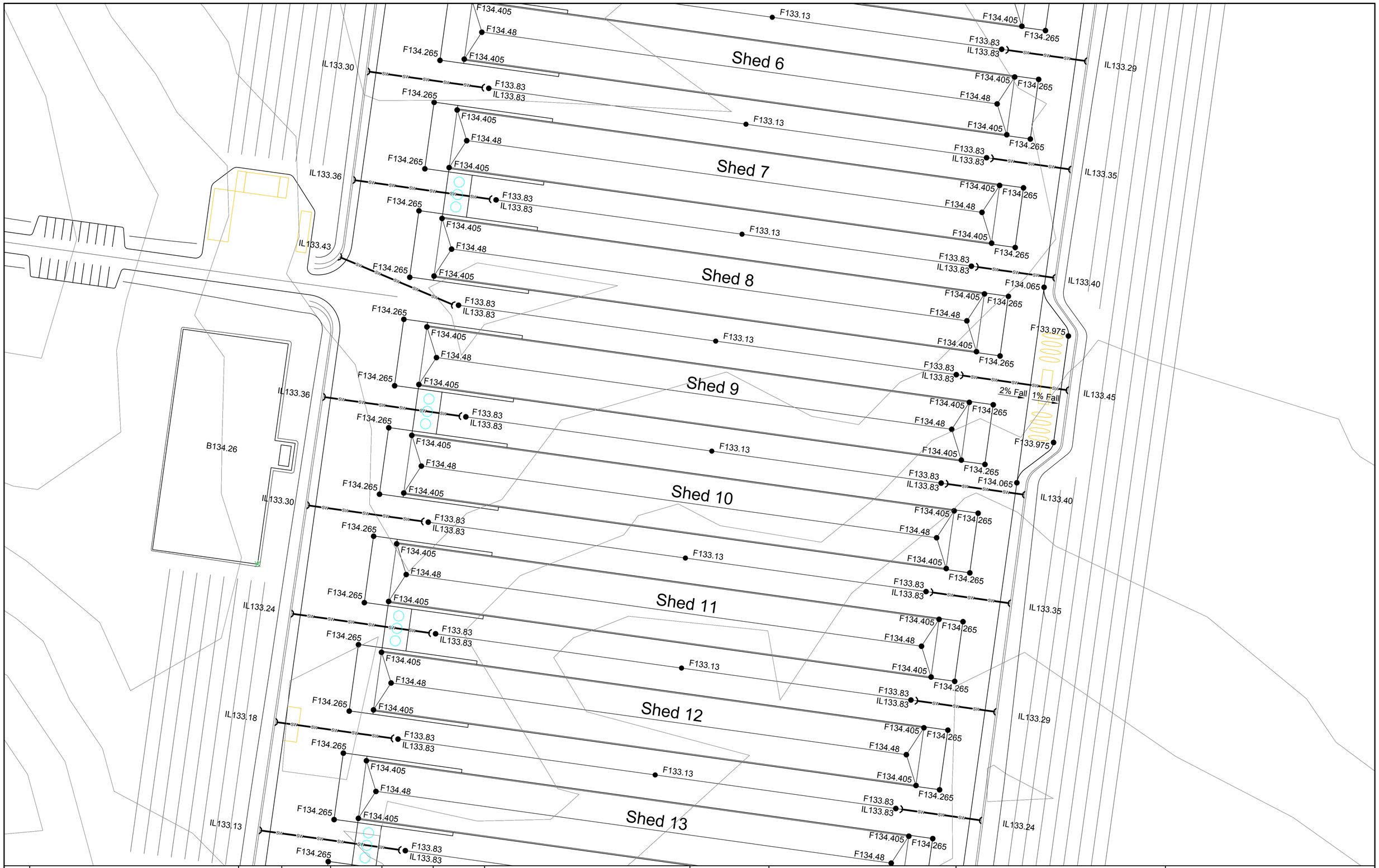
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Sheet: 24 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Farm 76
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

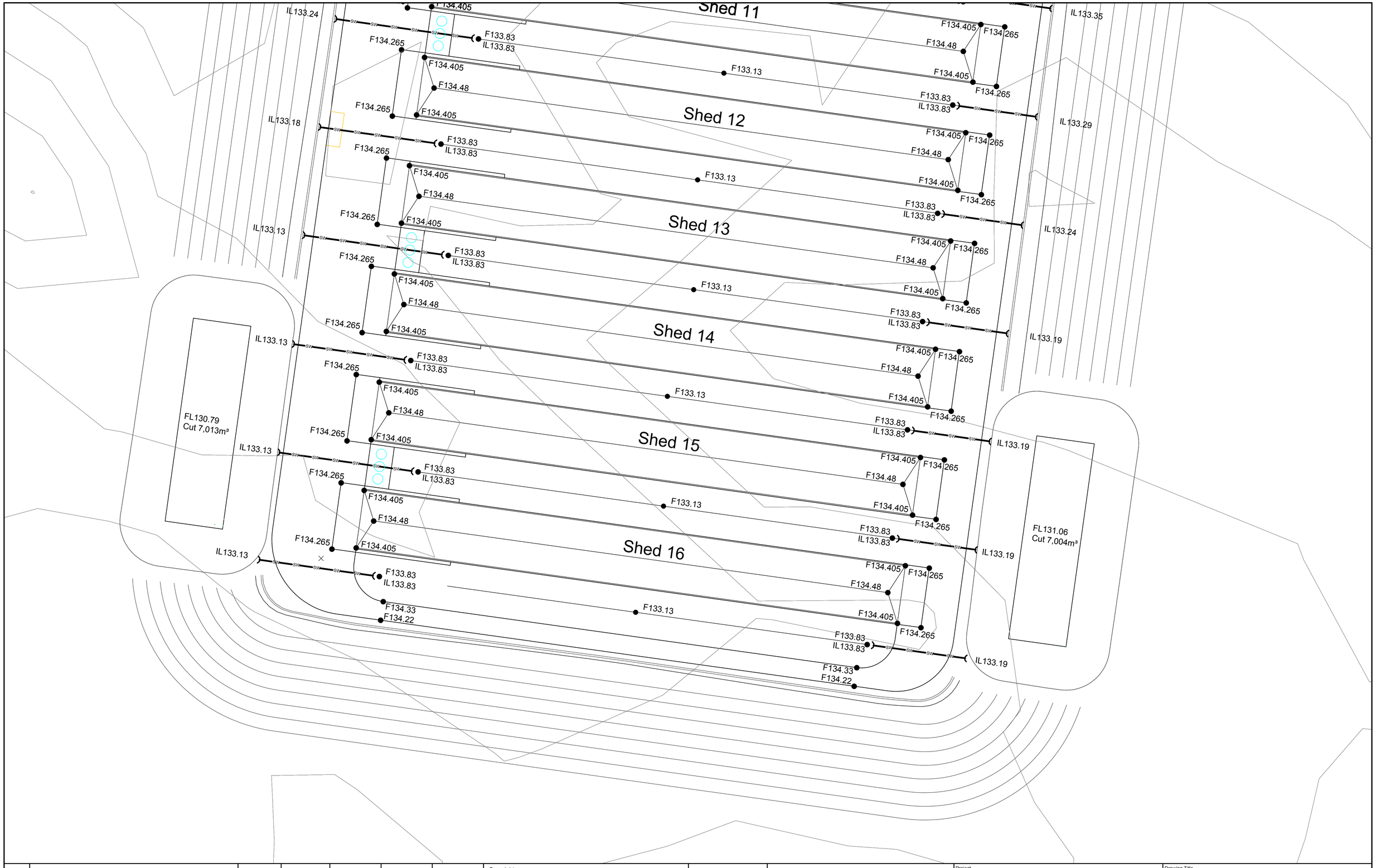
Dwg. No.: C25

Sheet: 25 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 76
Sheds 1-16 Plan

Scales
1:500

Client Project No.

Project Number
15W013

Dwg. No.
C26

Sheet
26 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm

F134.22
2% Fall
F134.33
F133.905
F133.83
B133.73
Topsoil 100mm thick
F134.265
28.00
F134.405
B134.33
7.00
1.00
0.30
2% Fall
Concrete Slab
100mm thick
2% Fall
F134.48
B134.405
Shed Slabs 75mm thick
Shed 1
F134.265
F134.405
B134.33
F133.83
B133.73
Topsoil 100mm thick
F134.405
B134.33
F134.48
B134.405
Shed Slabs 75mm thick
Shed 2
F134.405
B134.33
F133.83
B133.73
Topsoil 100mm thick
F134.405
B134.33
Shed 3
Shed Slabs 75mm thick
F134.48
F134.22
2% Fall
F133.33
Topsoil 100mm thick
F133.83
B133.73
F134.405
B134.33
F134.265
F134.065
Shed 1
Shed Slabs 75mm thick
F134.48
B134.405
F134.405
B134.33
F133.265
Topsoil 100mm thick
F133.83
B133.73
F134.405
B134.33
Shed 2
Shed Slabs 75mm thick
F134.48
B134.405
F134.405
B134.33
Topsoil 100mm thick
F133.83
B133.73
F134.405
B134.33
Shed 3
Shed Slabs 75mm thick
F134.48

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EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 76
Sheds 1-16 Plan

Client
ProTen

Scales
1:200

Client Project No.

Architect / Project Manager

Project Number
15W013

Dwg. No.
C27

Sheet
27 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm





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EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Farm 75
Sheds 1-16 Plan

Scales
1:1000

Client Project No.

Project Number
15W013

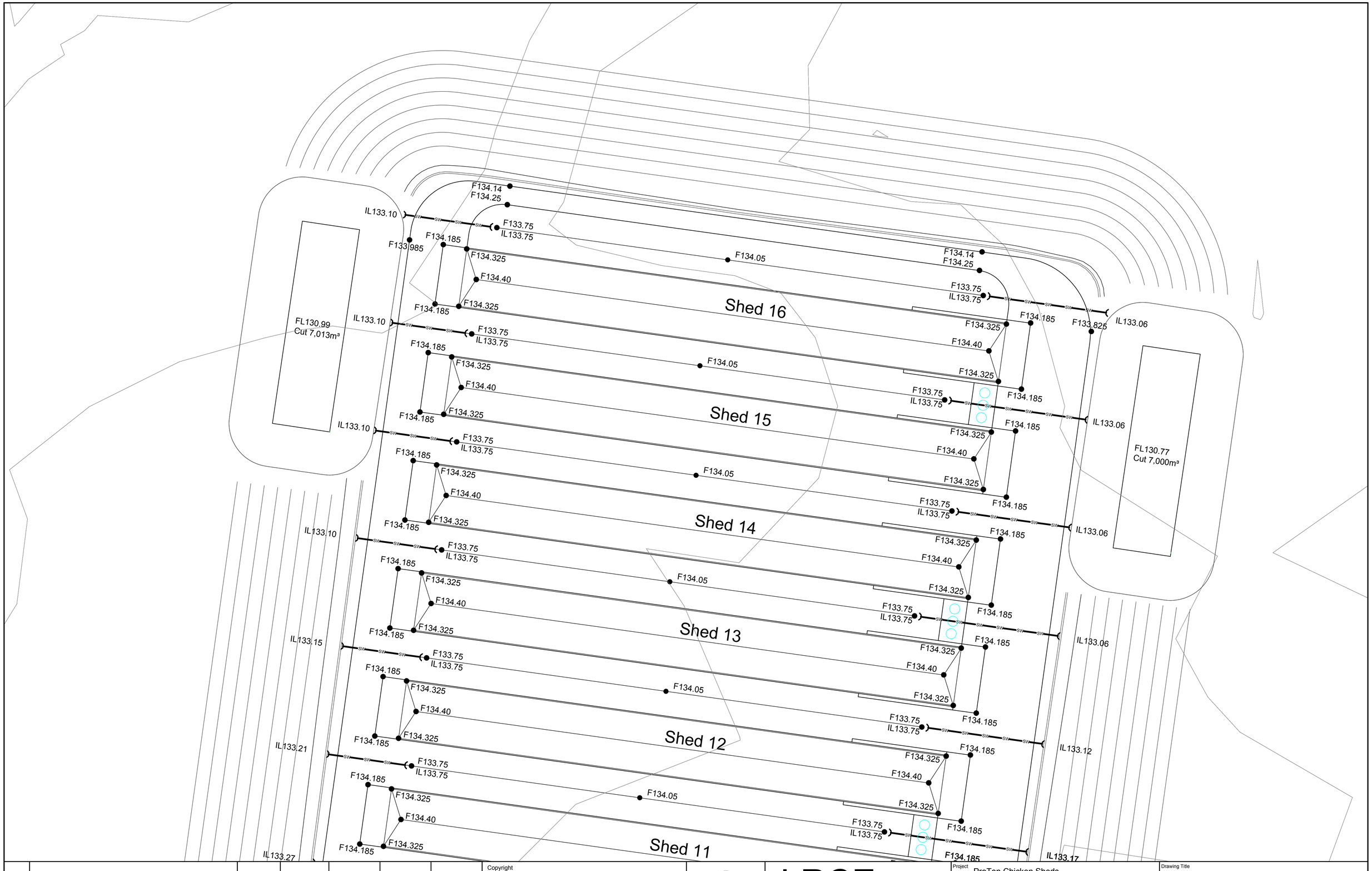
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C28

Sheet
28 of 76

Revision
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A1 SHEET

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 75
Sheds 1-16 Plan

Client: ProTen

Scales: 1:500

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

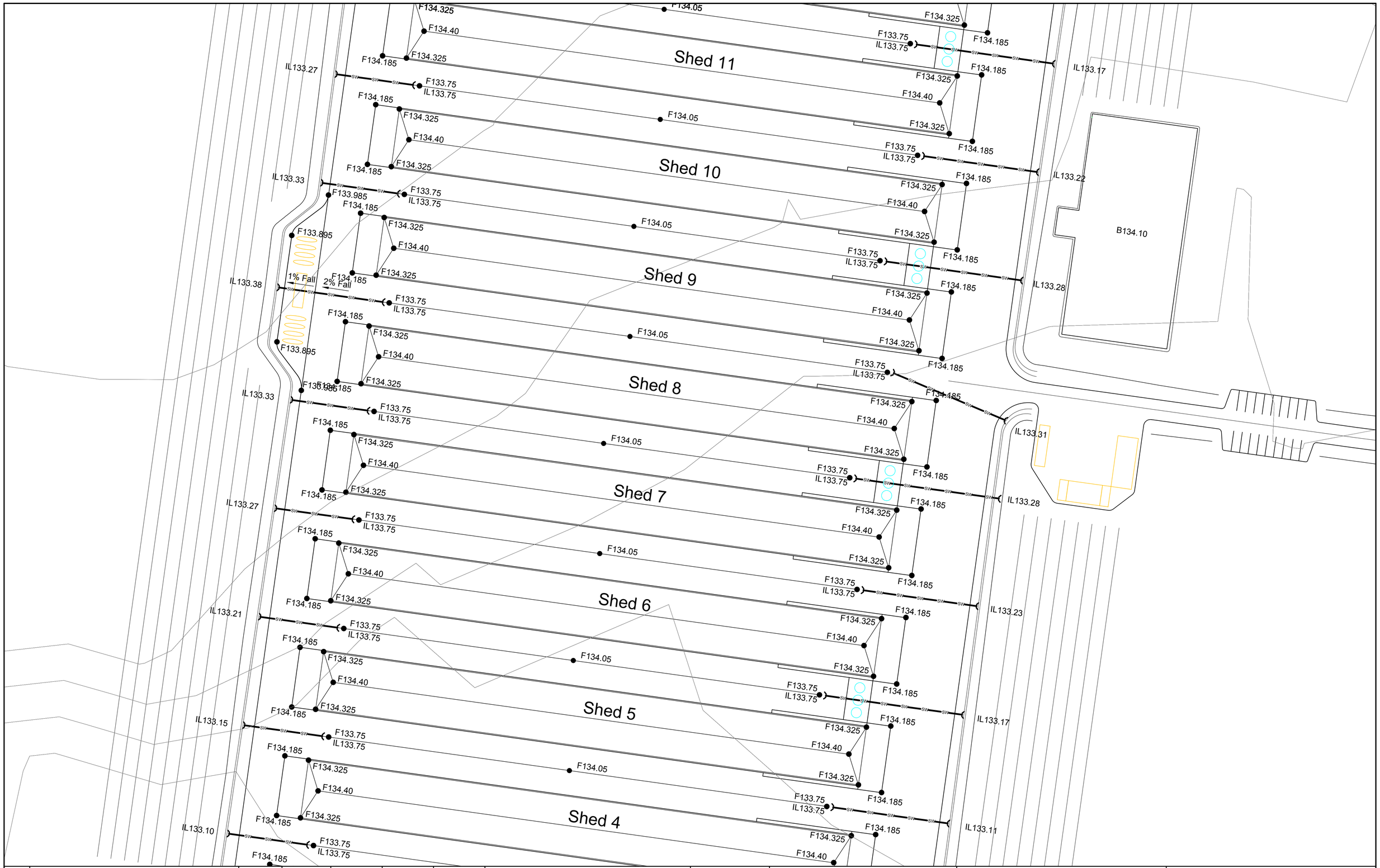
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Sheet: 29 of 76

Revision: 1

0 100mm 200mm 300mm

A1 SHEET



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	20.05.2015	L.V.R.	L.V.R.	L.V.R.	

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FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 75
Sheds 1-16 Plan

Client
ProTen

Scales
1:500

Client Project No.

Architect / Project Manager

Project Number
15W013

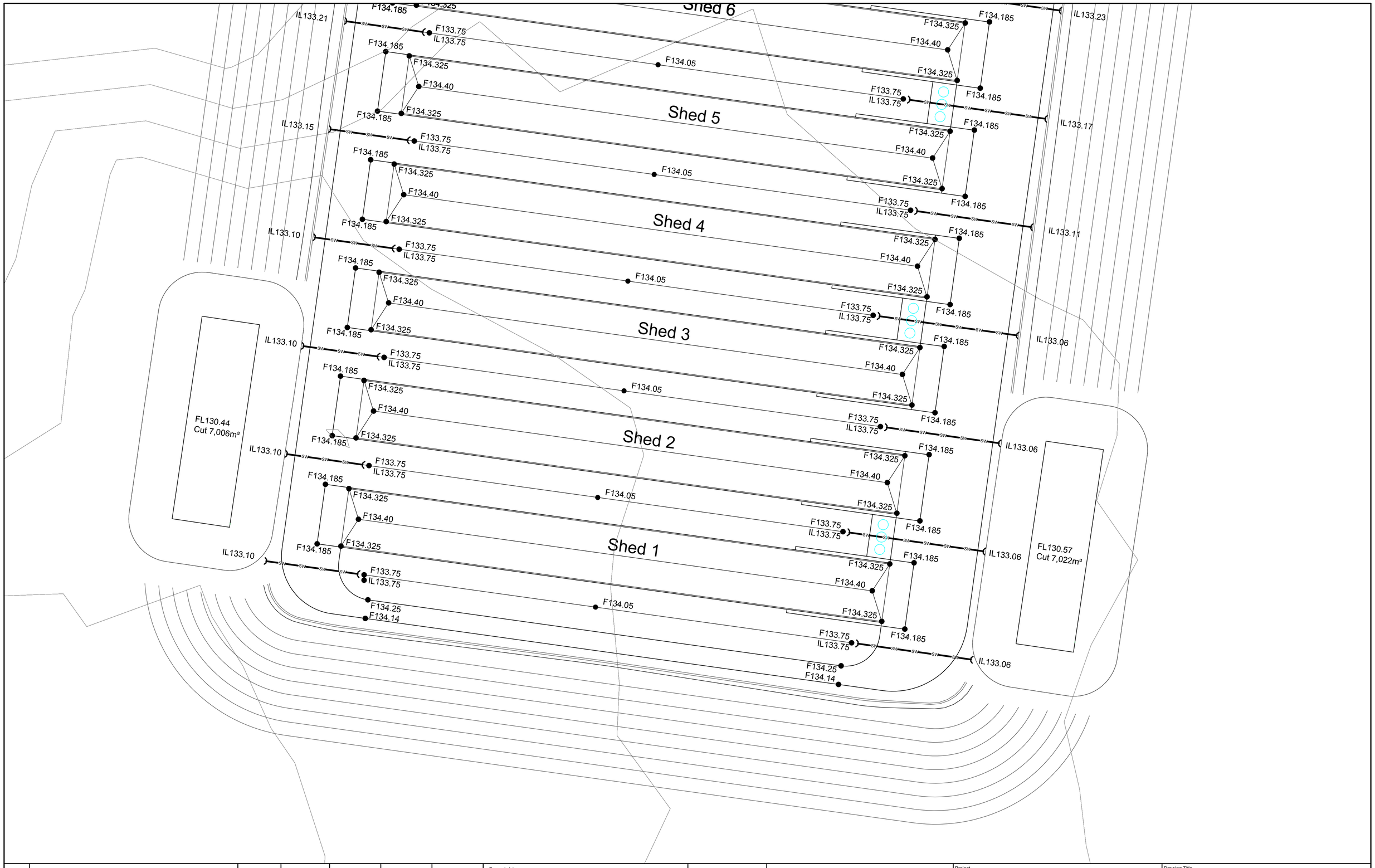
Dwg. No.
C30

Sheet
30 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	20.05.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Farm 75
Sheds 1-16 Plan

Scales: 1:500

Client Project No.:

Project Number: 15W013

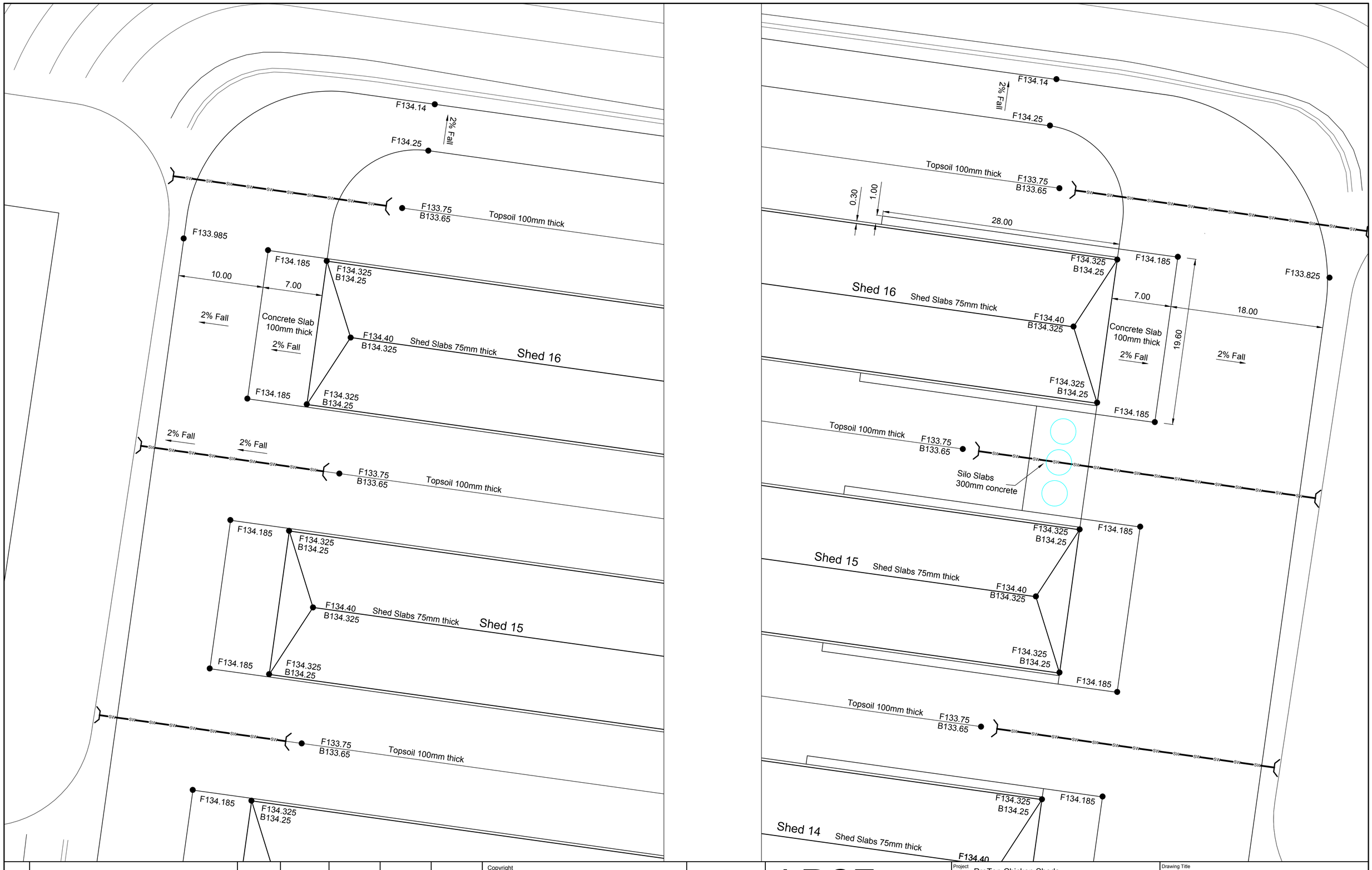
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Sheet: 31 or 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by ✕ = Not verified	Issue authorised (*)
1	Issued for Information	20.05.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Farm 75
Sheds 1-16 Plan

Client
ProTen

Scales
1:200

Client Project No.

Architect / Project Manager

Project Number
15W013

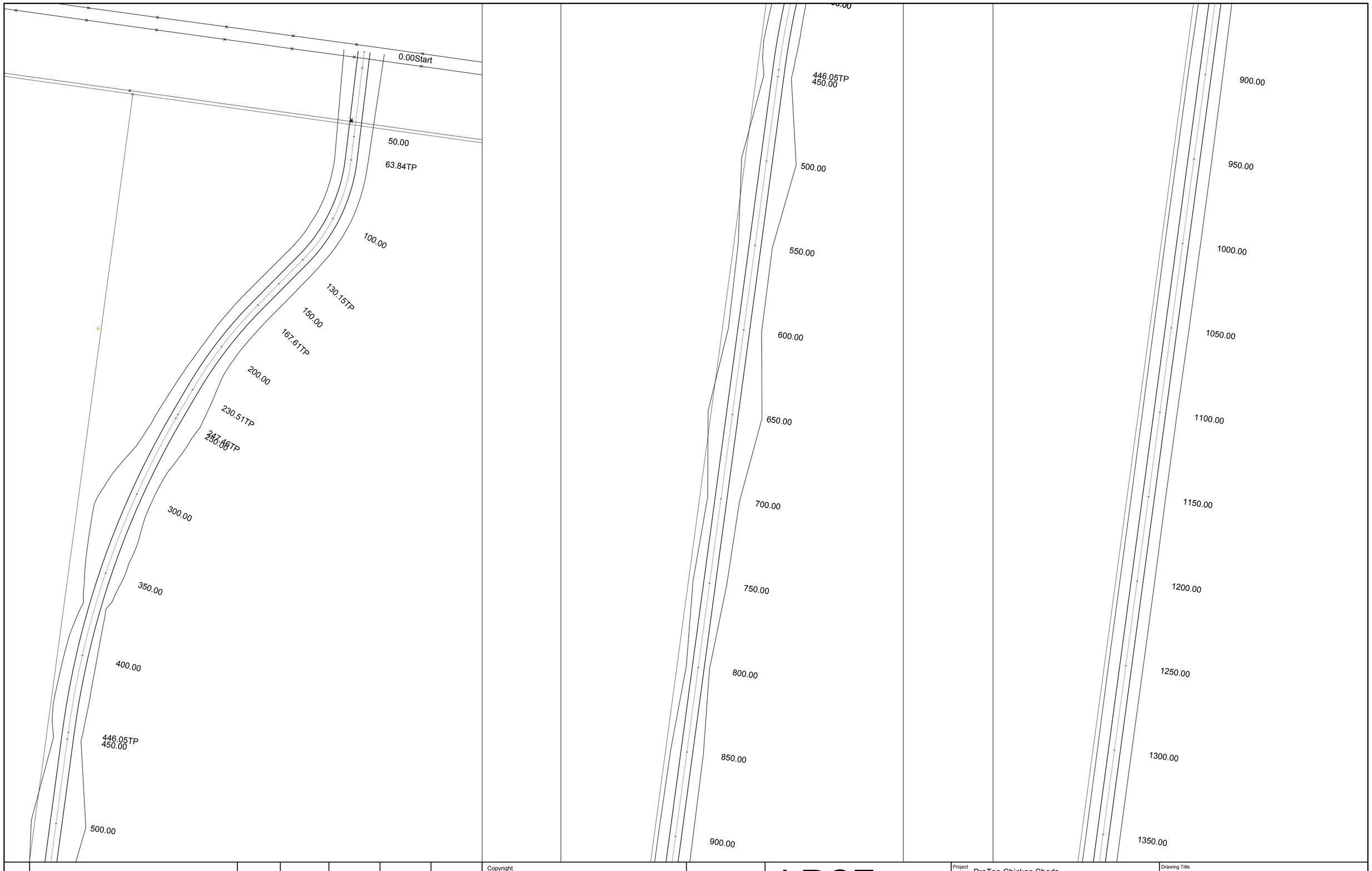
Dwg. No.
C32

Sheet
32 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Plan 01

Client: ProTen

Architect / Project Manager

Scales: 1:1000

Client Project No.

Project Number: 15W013

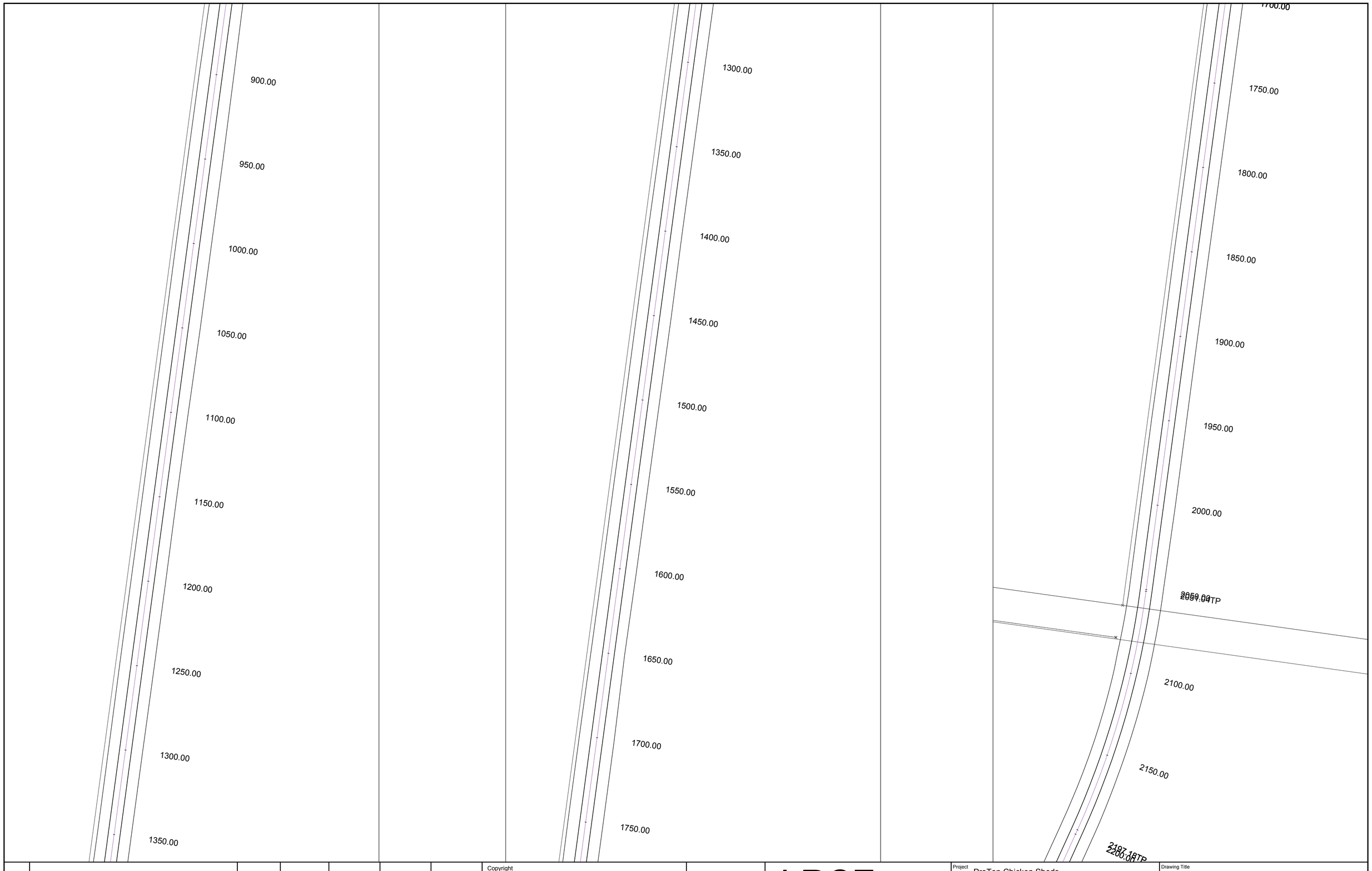
Dwg. No.: C33

Sheet: 33 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Plan 02

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

Dwg. No.
C34

Sheet
34 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Plan 03

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

Dwg. No.
C35

Sheet
35 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

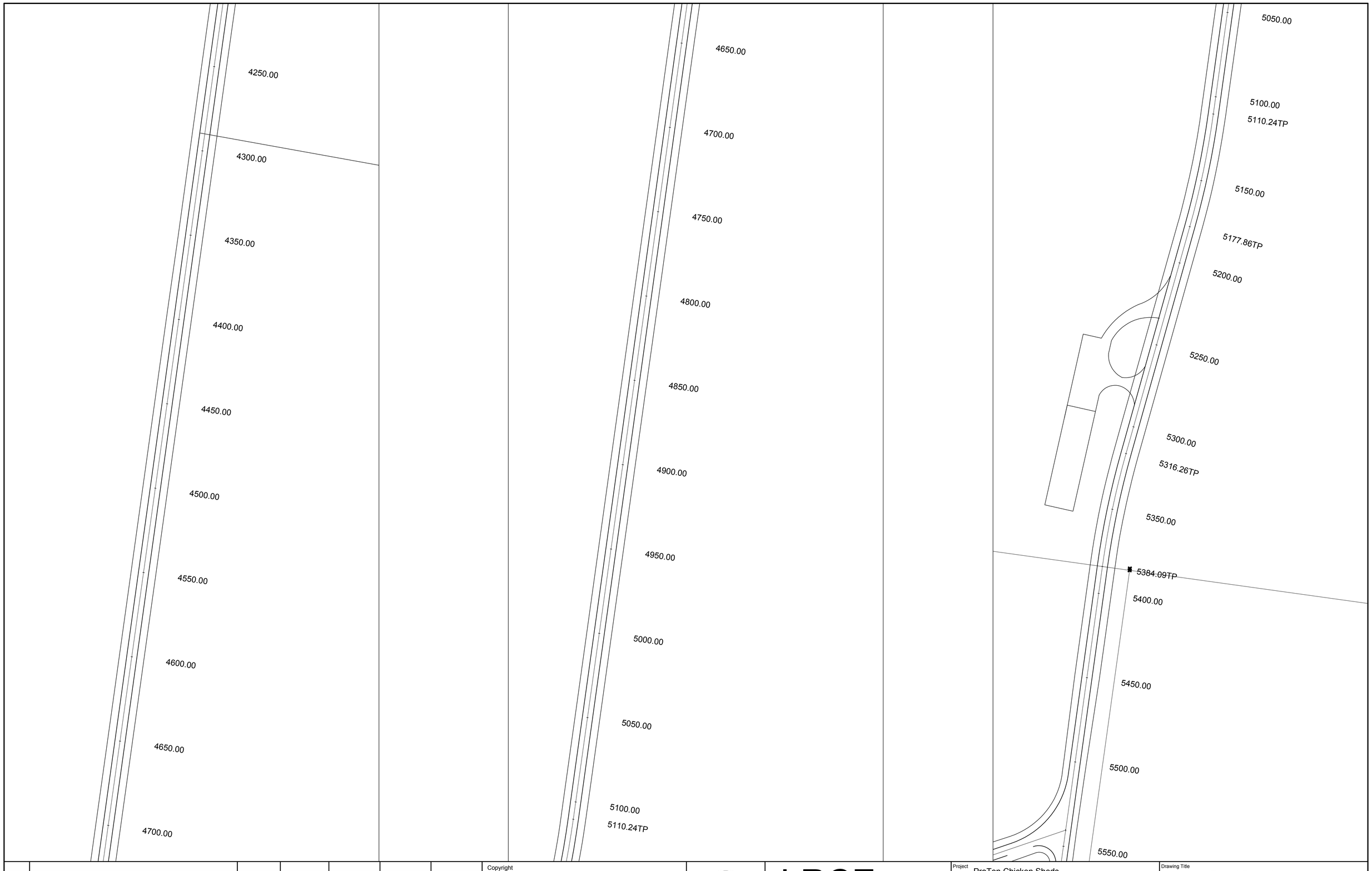
Client
ProTen

Architect / Project Manager

Drawing Title
Access Road Plan 04

Scales	Client Project No.		
1:1000			
Project Number	**Dwg. No.**	**Sheet**	**Revision**
15W013	C36	36 of 76	1

0 100mm 200mm 300mm A1 SHEET



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	28.04.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Plan 05

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

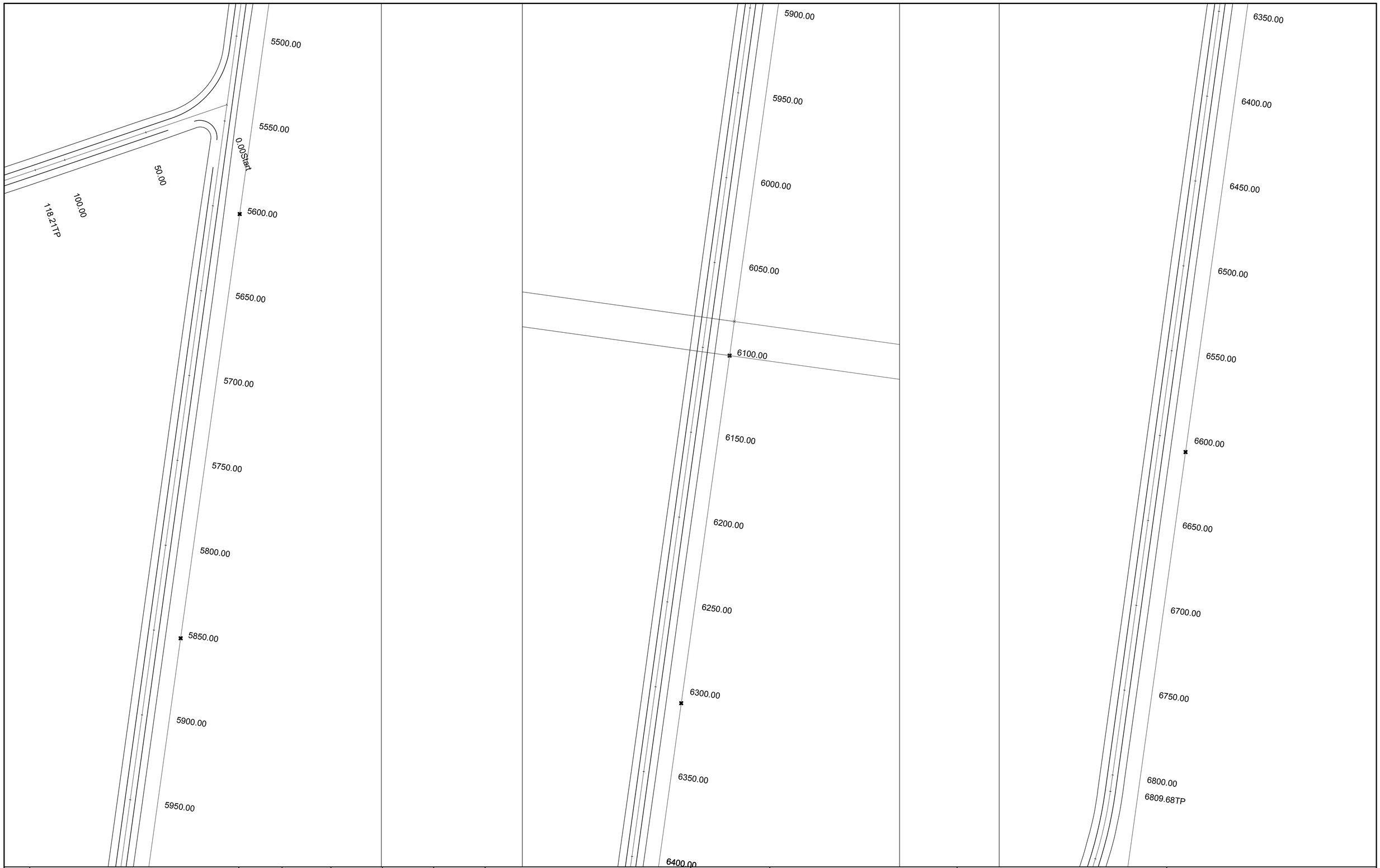
Dwg. No.
C37

Sheet
37 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



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1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Access Road Plan 06

Scales
1:1000

Client Project No.

Project Number
15W013

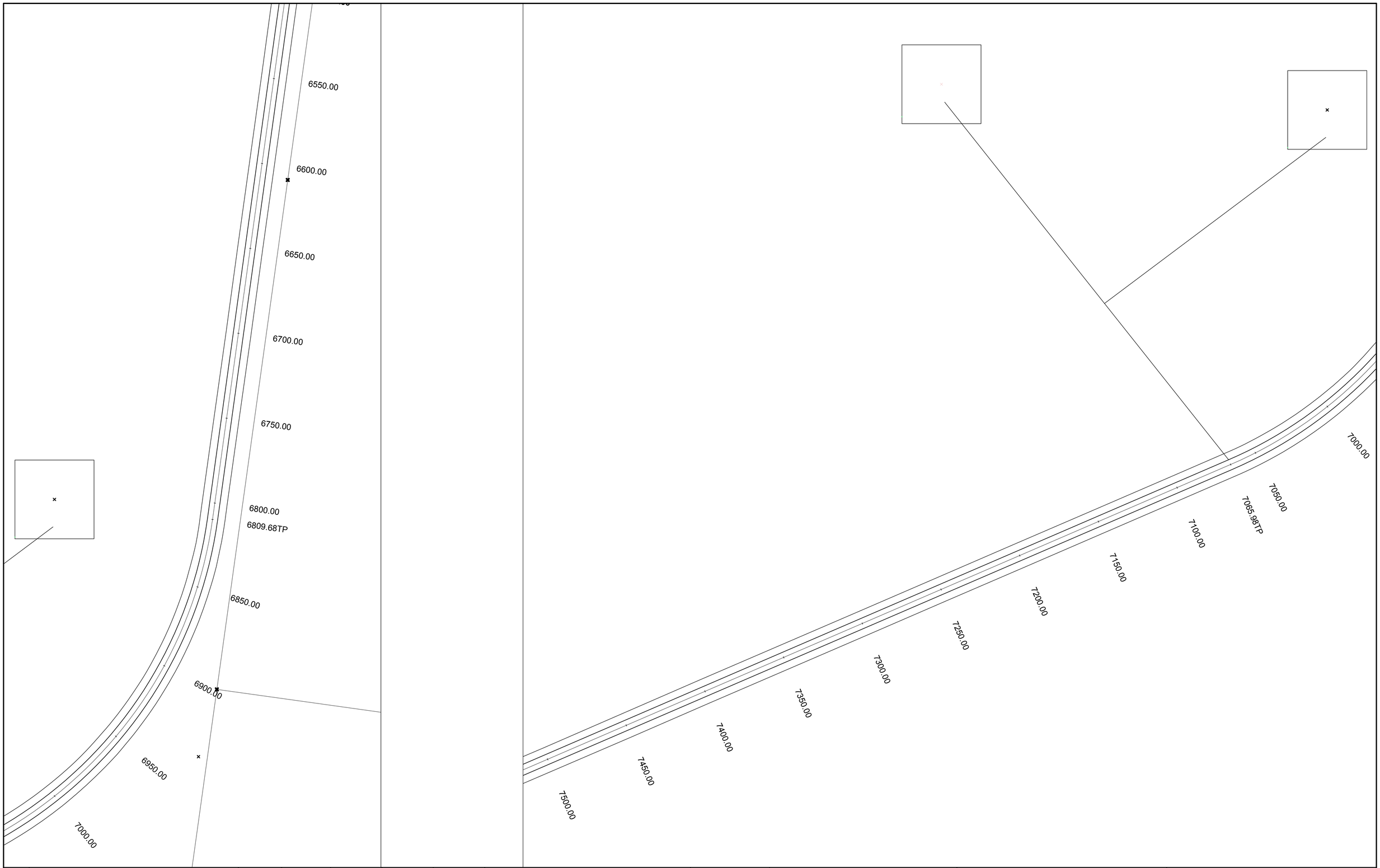
Dwg. No.
C38

Sheet
38 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Access Road Plan 07

Scales
1:1000

Client Project No.

Project Number
15W013

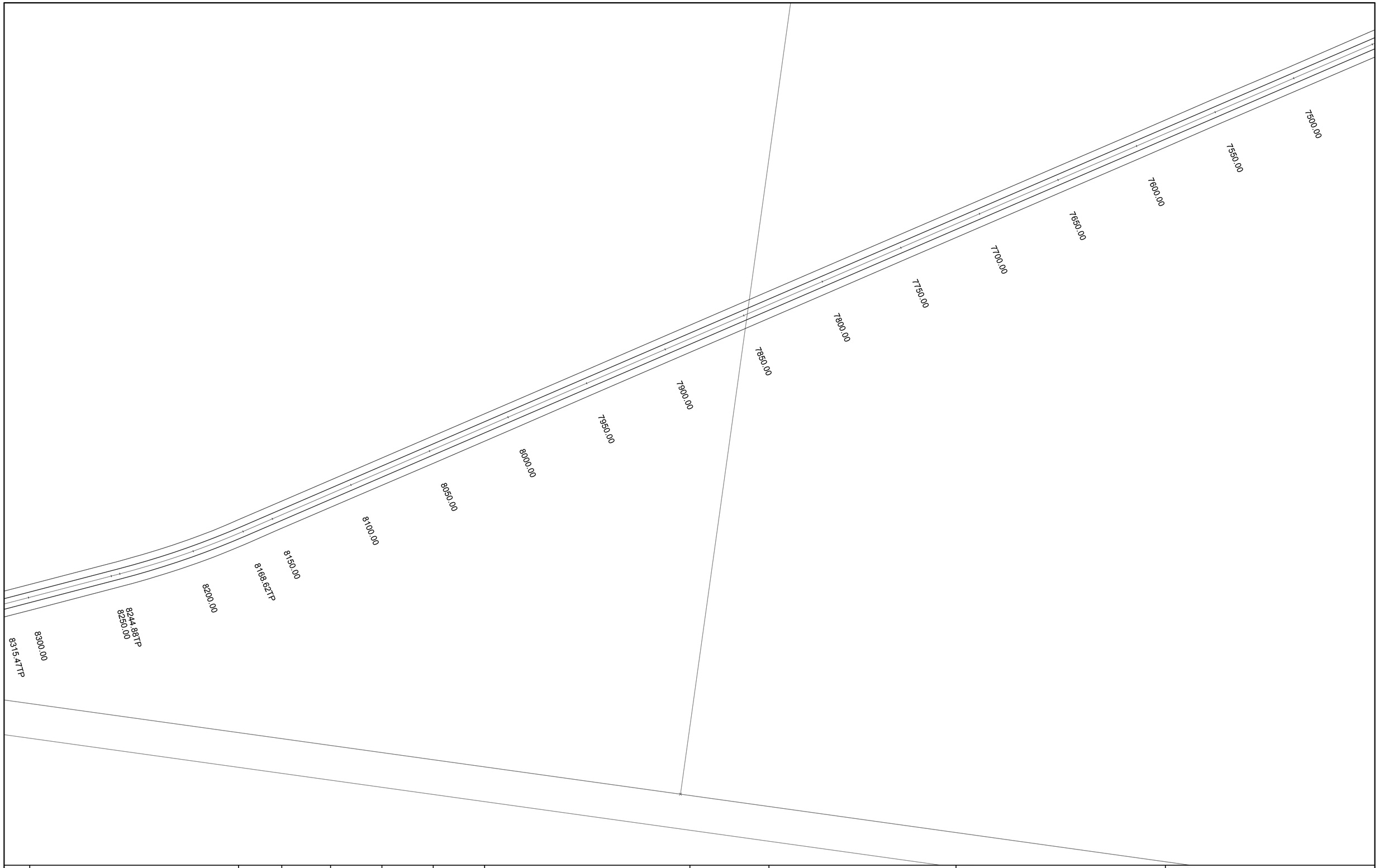
Dwg. No.
C39

Sheet
39 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Plan 08

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

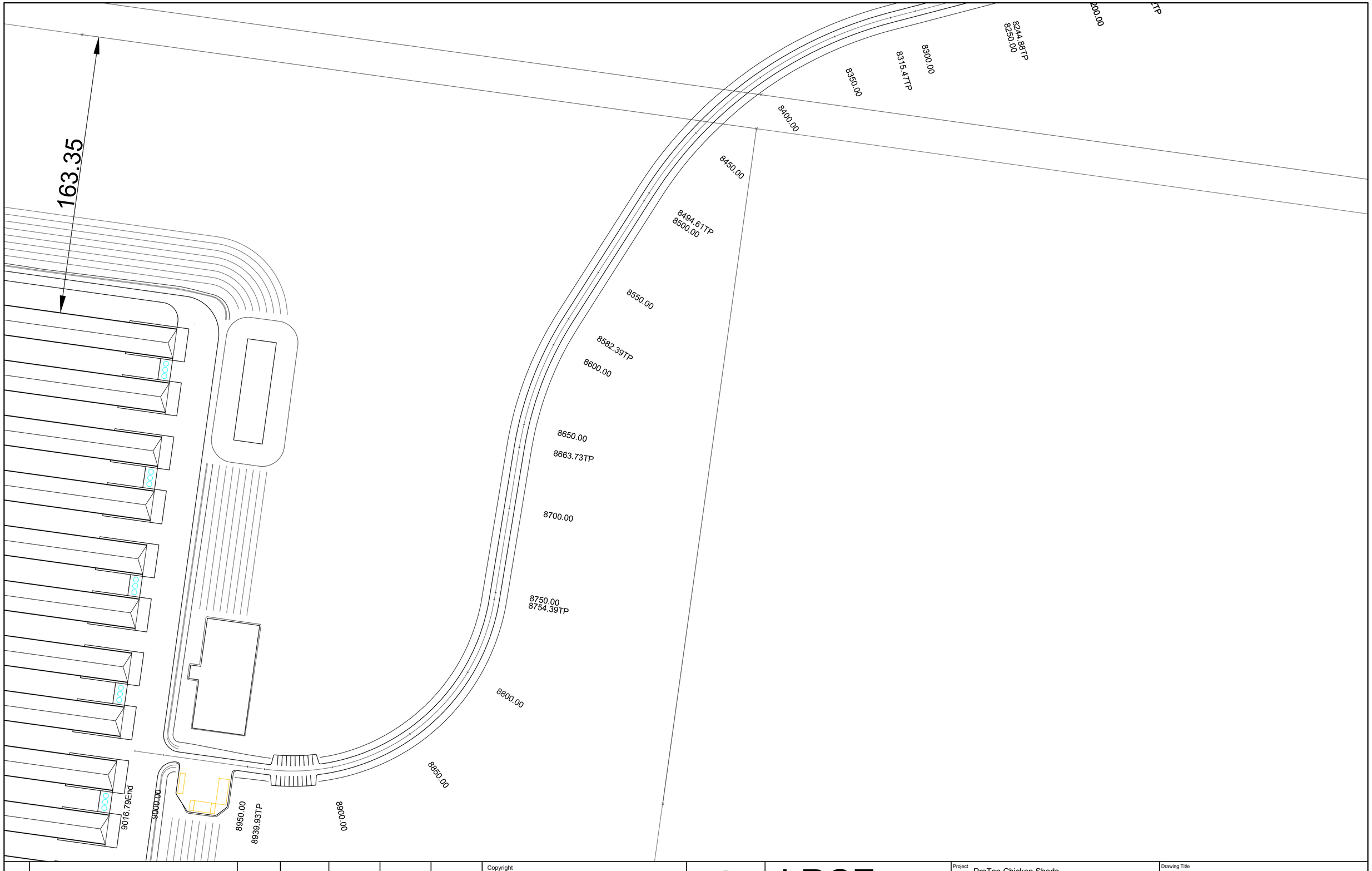
Dwg. No.: C40

Sheet: 40 or 76

Revision: 1

A1 SHEET

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1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Plan 09

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

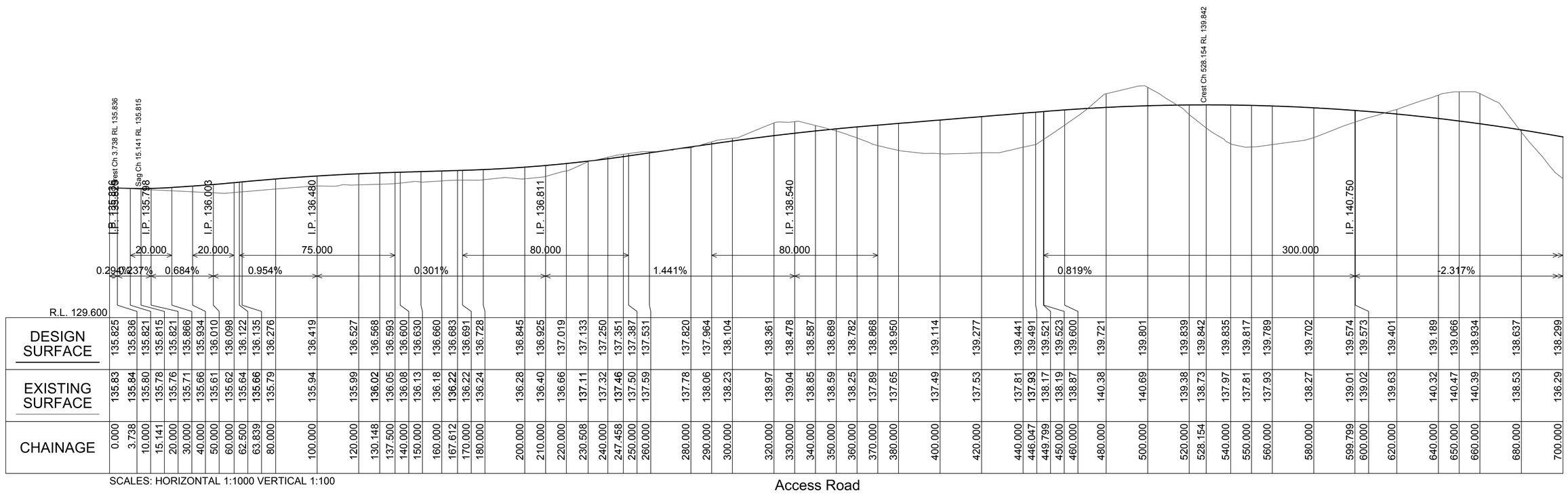
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C41

Sheet
41 or 76

Revision
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A1 SHEET

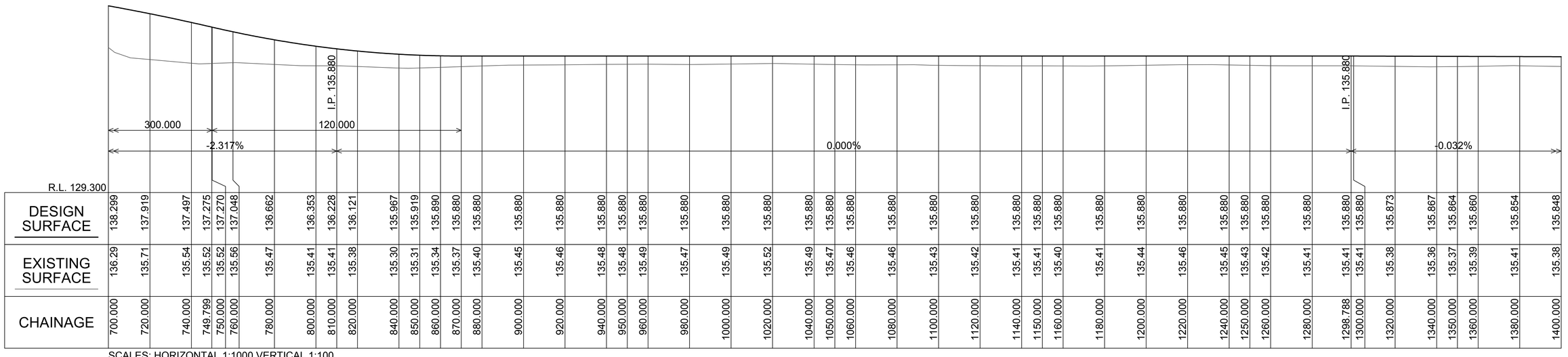
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EXISTING SURFACE	135.83	135.84	135.80	135.78	135.76	135.71	135.66	135.61	135.62	135.64	135.66	135.79	135.94	135.99	136.02	136.05	136.08	136.13	136.18	136.22	136.22	136.24	136.28	136.40	136.66	137.11	137.32	137.46	137.50	137.59	137.78	138.06	138.23	138.97	139.04	138.85	138.59	138.25	137.89	137.65	137.49	137.53	137.81	137.93	138.17	138.19	138.87	140.38	140.69	139.38	138.73	137.97	137.81	137.93	138.27	139.01	139.02	139.63	140.32	140.47	140.39	138.53	136.29
DESIGN SURFACE	135.825	135.836	135.821	135.815	135.821	135.866	135.934	136.010	136.098	136.122	136.135	136.276	136.419	136.527	136.568	136.593	136.600	136.630	136.660	136.683	136.691	136.728	136.845	136.925	137.019	137.133	137.250	137.351	137.387	137.531	137.820	137.964	138.104	138.361	138.478	138.587	138.689	138.782	138.868	138.950	139.114	139.277	139.441	139.491	139.521	139.523	139.600	139.721	139.801	139.839	139.842	139.835	139.817	139.789	139.702	139.574	139.573	139.401	139.189	139.066	138.934	138.637	138.299

SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road



CHAINAGE	700.000	720.000	740.000	749.799	750.000	760.000	780.000	800.000	810.000	820.000	840.000	850.000	860.000	870.000	880.000	900.000	920.000	940.000	950.000	960.000	980.000	1000.000	1020.000	1040.000	1050.000	1060.000	1080.000	1100.000	1120.000	1140.000	1150.000	1160.000	1180.000	1200.000	1220.000	1240.000	1250.000	1260.000	1280.000	1298.788	1300.000	1320.000	1340.000	1350.000	1360.000	1380.000	1400.000
EXISTING SURFACE	136.29	135.71	135.54	135.52	135.52	135.56	135.47	135.41	135.41	135.38	135.30	135.31	135.34	135.37	135.40	135.45	135.46	135.48	135.48	135.49	135.47	135.49	135.52	135.49	135.47	135.46	135.46	135.43	135.42	135.41	135.41	135.40	135.41	135.44	135.46	135.45	135.43	135.42	135.41	135.41	135.41	135.38	135.36	135.37	135.39	135.41	135.38
DESIGN SURFACE	138.299	137.919	137.497	137.275	137.270	137.048	136.662	136.353	136.228	136.121	135.967	135.919	135.890	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.880	135.873	135.867	135.864	135.860	135.854	135.848

SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Long Sections 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

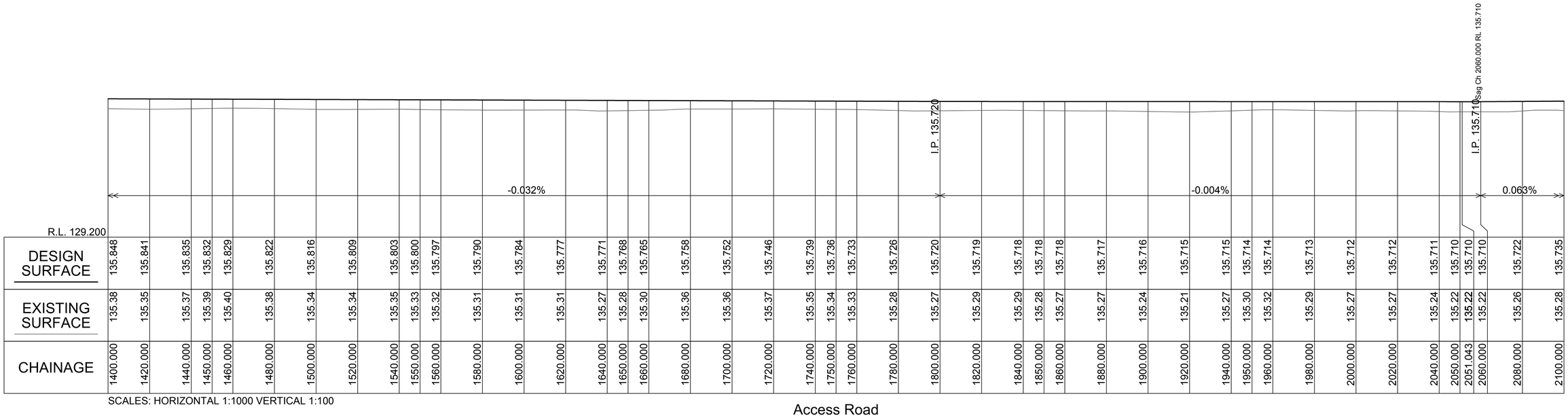
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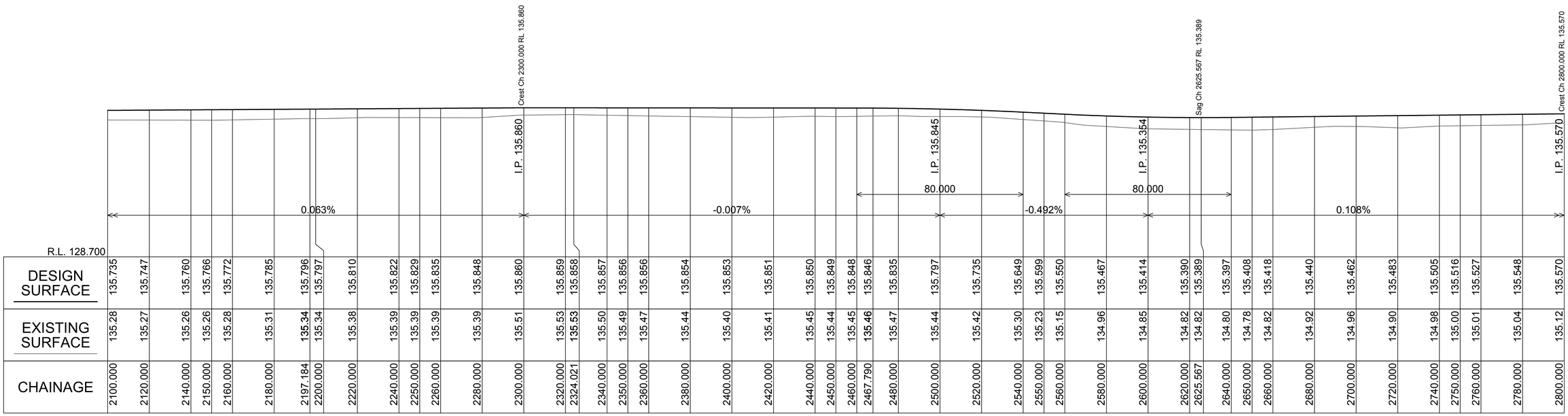
Sheet: 42 or 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm





Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Long Sections 02

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

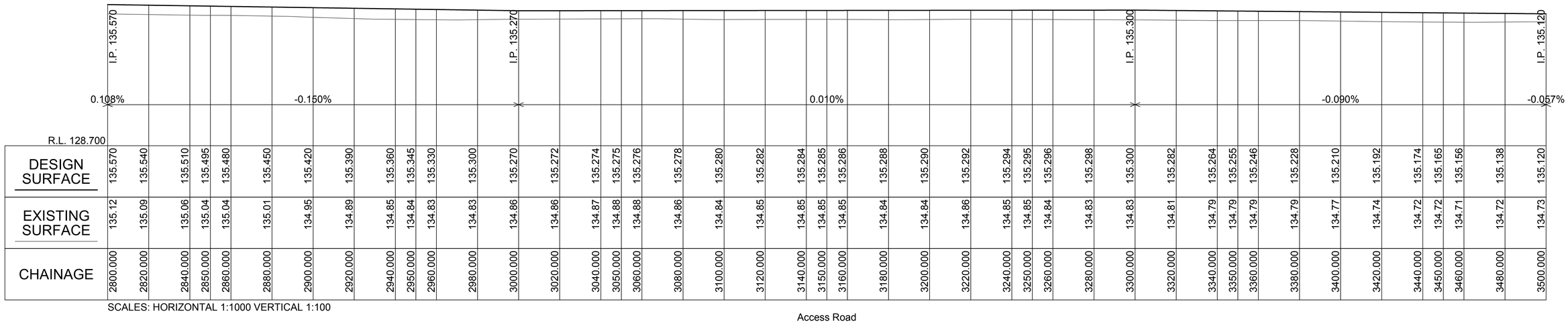
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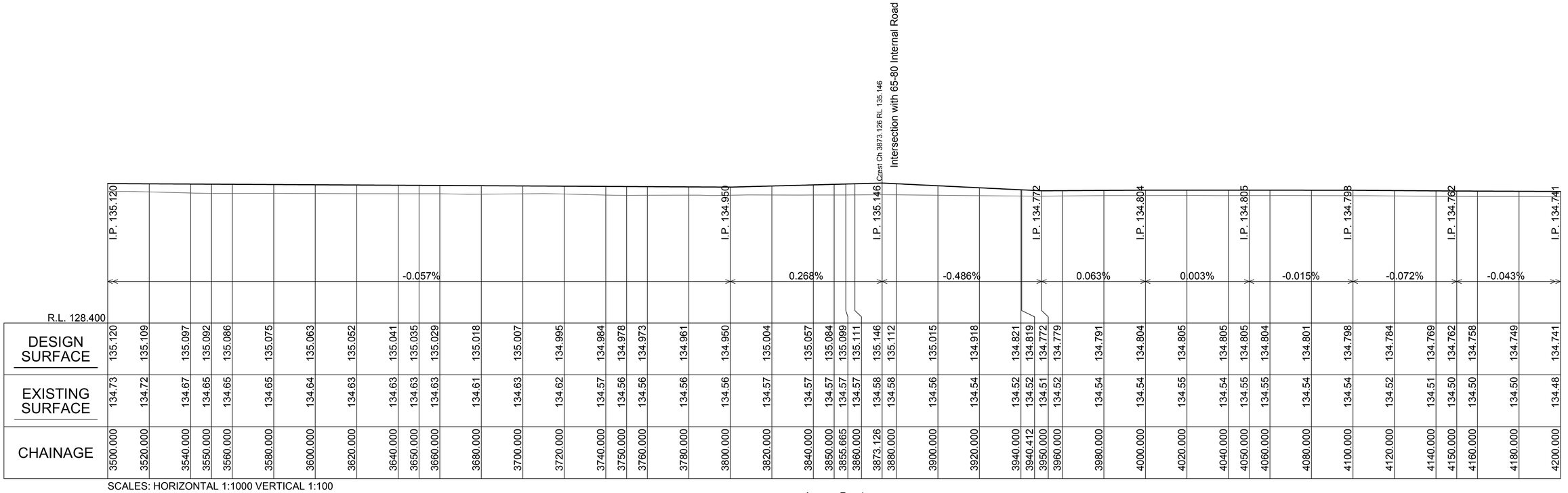
Sheet: 43 of 76

Revision: 1

0 100mm 200mm 300mm

A1 SHEET





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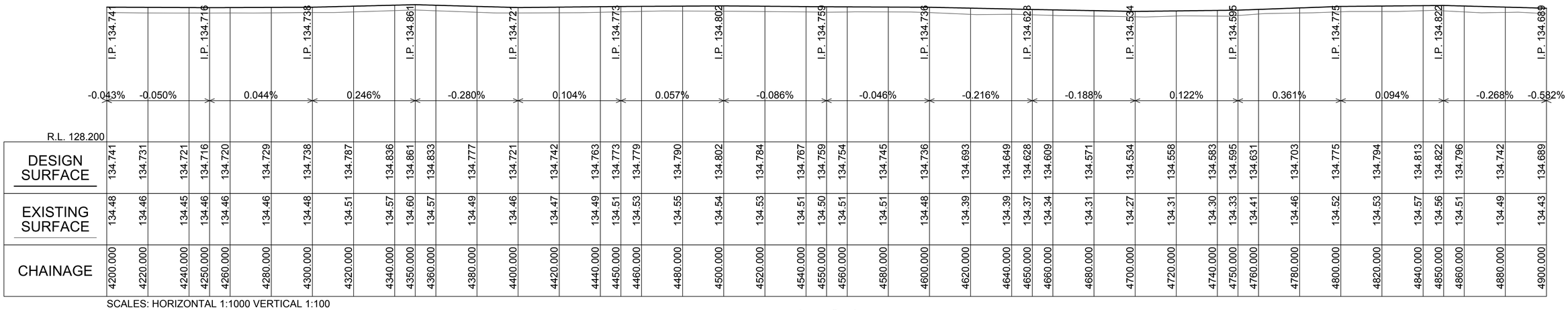
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Project	ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700
Client	ProTen
Architect / Project Manager	
Drawing Title	Access Road Long Sections 03
Scales	1:1000
Client Project No.	
Project Number	15W013
Dwg. No.	C44
Sheet	44 or 76
Revision	1

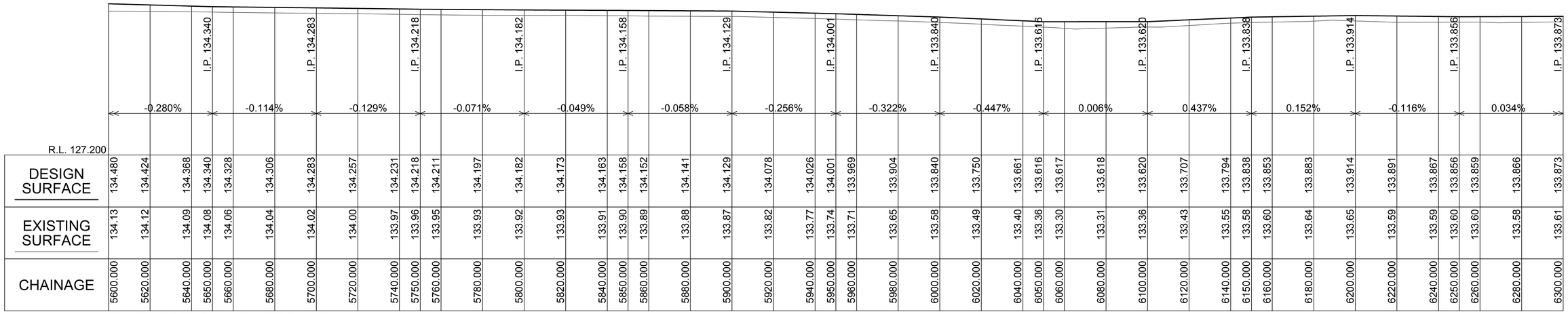
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I.P. 134.741
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I.P. 134.773
I.P. 134.802
I.P. 134.759
I.P. 134.736
I.P. 134.623
I.P. 134.534
I.P. 134.595
I.P. 134.775
I.P. 134.822
I.P. 134.689
-0.043%
-0.050%
0.044%
0.246%
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0.057%
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-0.216%
-0.188%
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0.361%
0.094%
-0.268%
-0.582%

R.L. 128.200

| | | |



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road

SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road

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Project: ProTen Chicken Sheds, ProTen Narrandera, Lot 42, Sturt Highway, Euroley NSW 2700

Drawing Title: Access Road Long Sections 05

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

Dwg. No.: C46

Sheet: 46 or 76

Revision: 1

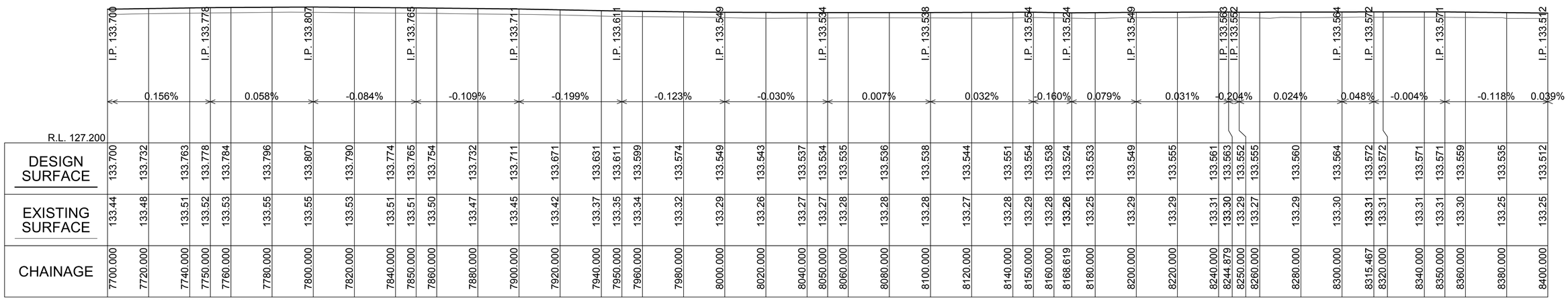
A1 SHEET

0 100mm 200mm 300mm



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Access Road Long Sections 06

Scales: 1:1000

Client Project No.

Project Number: 15W013

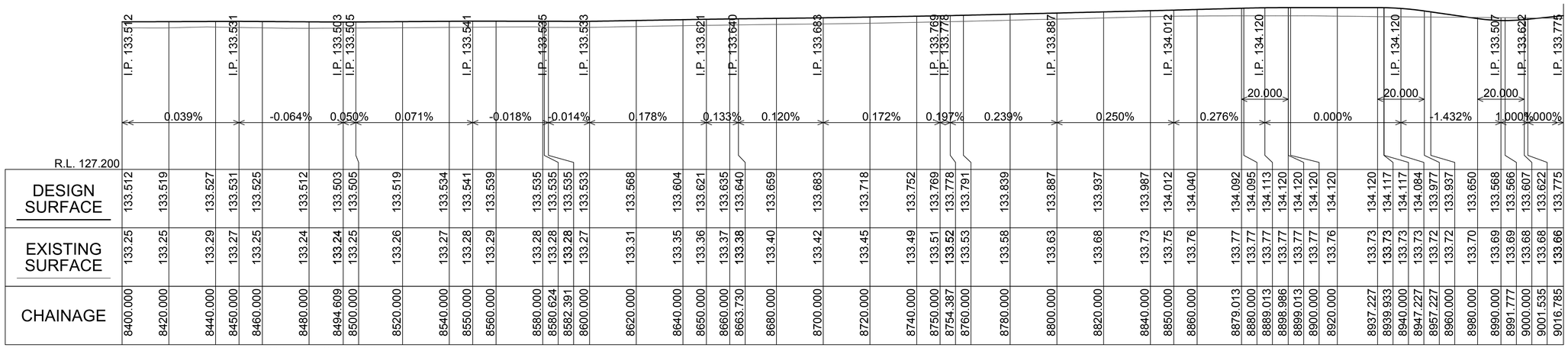
Dwg. No.: C47

Sheet: 47 of 76

Revision: 1

A1 SHEET

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SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Access Road

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Long Sections 07

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

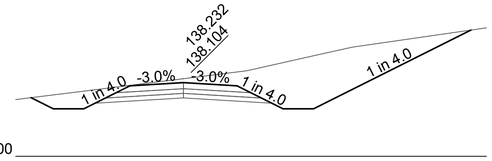
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Revision: 1

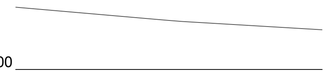
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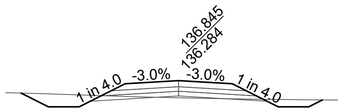
R.L. 135.700

Ch 300.000



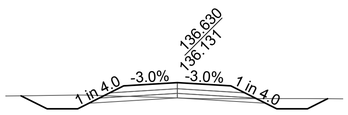
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Ch 250.000



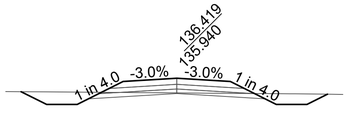
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Ch 200.000



R.L. 134.200

Ch 150.000



R.L. 134.000

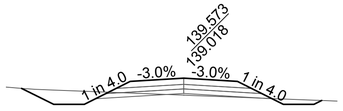
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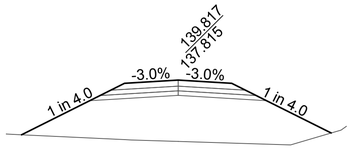
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Ch 50.000



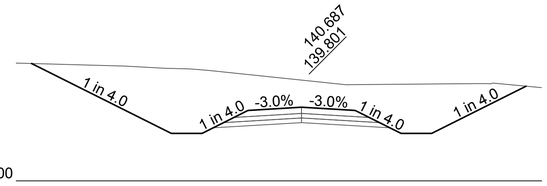
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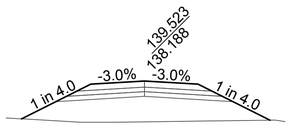
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Ch 550.000



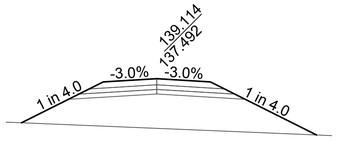
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Ch 500.000



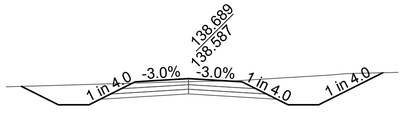
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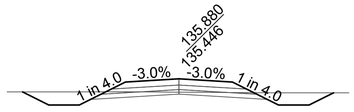
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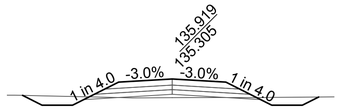
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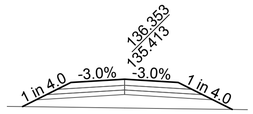
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Ch 900.000



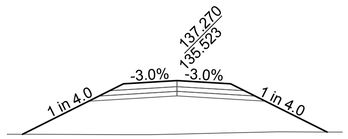
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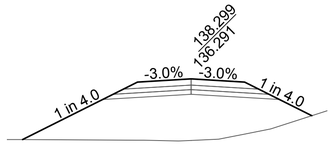
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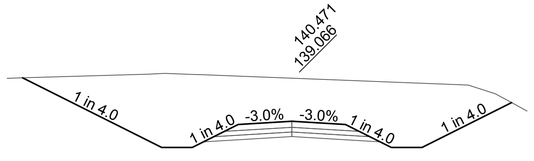
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Ch 750.000



R.L. 134.700

Ch 700.000



R.L. 136.700

Ch 650.000

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Access Road Cross Sections 01

Scales
1:1000

Client Project No.

Project Number
15W013

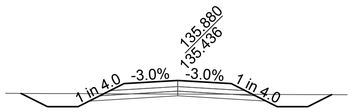
Dwg. No.
C49

Sheet
49 of 76

Revision
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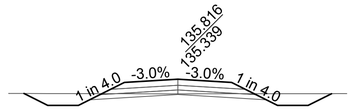
A1 SHEET

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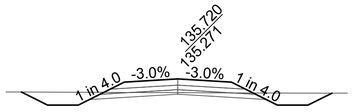
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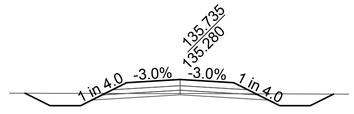
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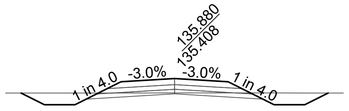
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Ch 1800.000



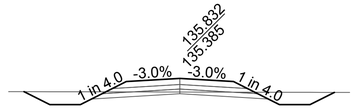
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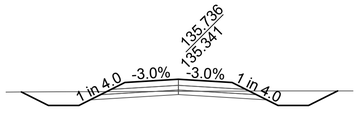
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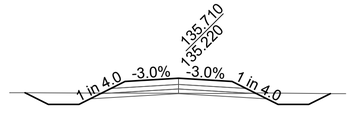
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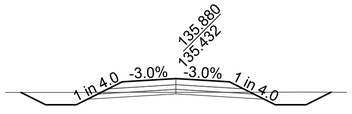
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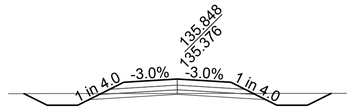
R.L. 133.300

Ch 2050.000



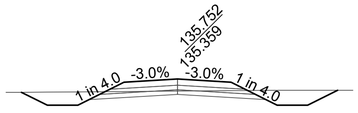
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Ch 1100.000



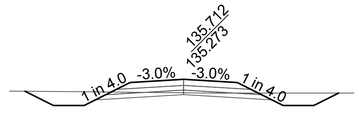
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Ch 1400.000



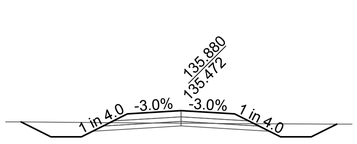
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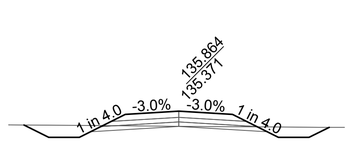
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Ch 2000.000



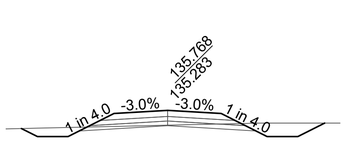
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Ch 1050.000



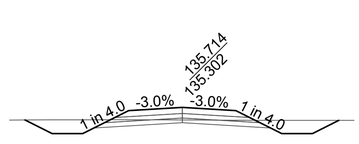
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Ch 1350.000



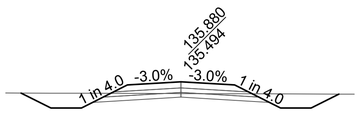
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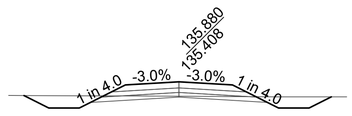
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Ch 1950.000



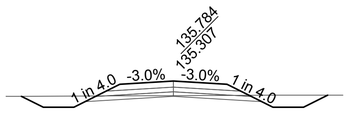
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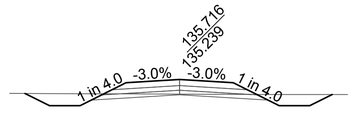
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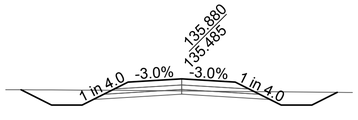
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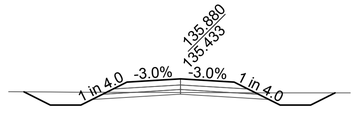
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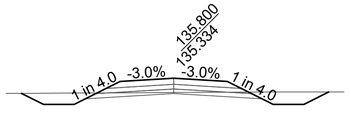
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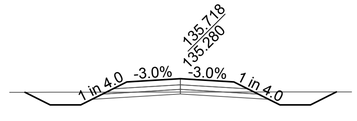
R.L. 133.500

Ch 1250.000



R.L. 133.400

Ch 1550.000



R.L. 133.300

Ch 1850.000

Scales: H 1 in200V 1 in100

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Access Road Cross Sections 02

Scales
1:1000

Client Project No.

Project Number
15W013

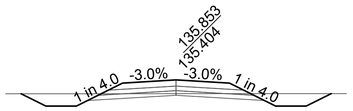
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Sheet
50 of 76

Revision
1

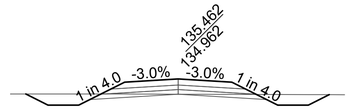
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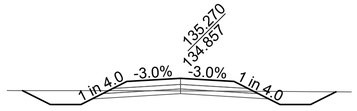
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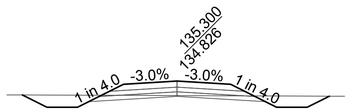
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Ch 2700.000



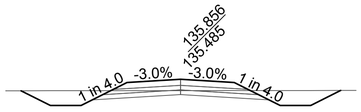
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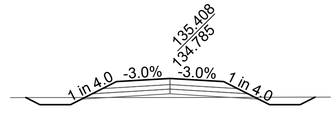
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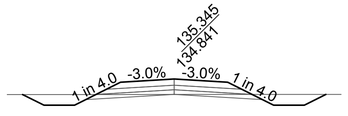
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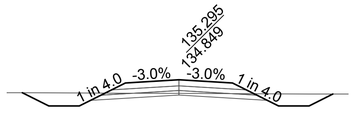
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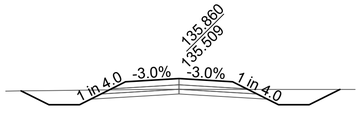
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Ch 2950.000



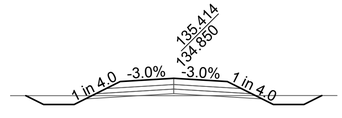
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Ch 3250.000



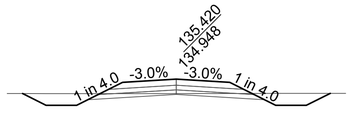
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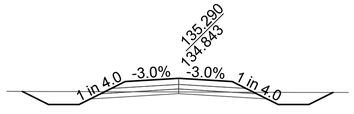
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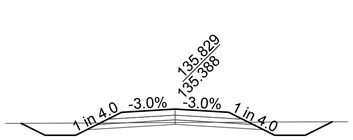
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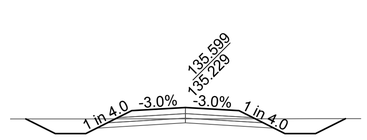
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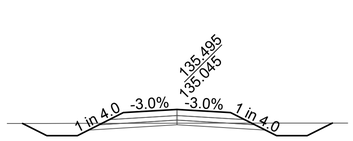
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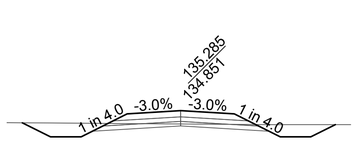
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Ch 2550.000



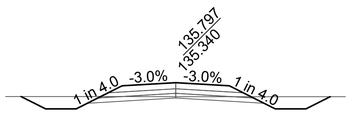
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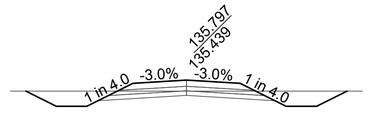
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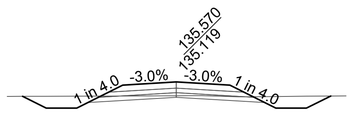
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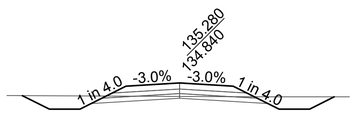
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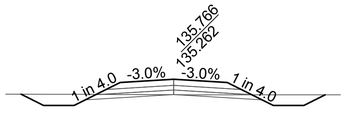
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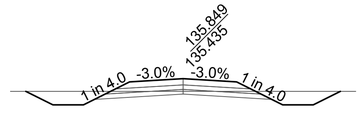
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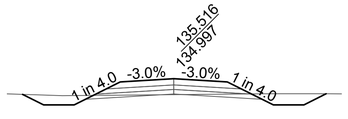
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Ch 2150.000



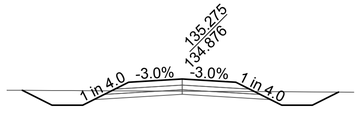
R.L. 133.400

Ch 2450.000



R.L. 133.100

Ch 2750.000



R.L. 132.900

Ch 3050.000

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Cross Sections 03

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

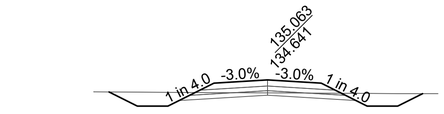
Dwg. No.
C51

Sheet
51 of 76

Revision
1

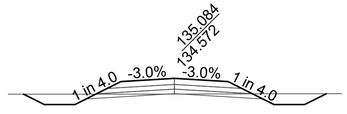
A1 SHEET

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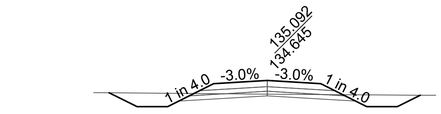
R.L. 132.700

Ch 3600.000



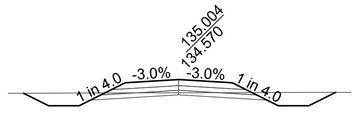
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Ch 3850.000



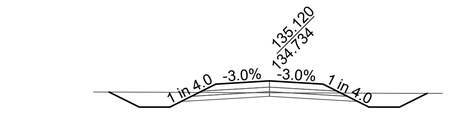
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Ch 3550.000



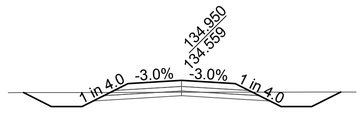
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Ch 3820.000



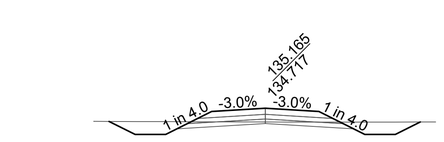
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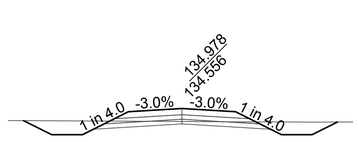
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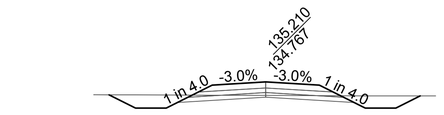
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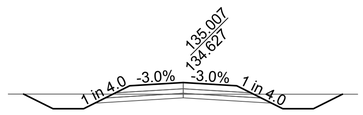
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Ch 3750.000



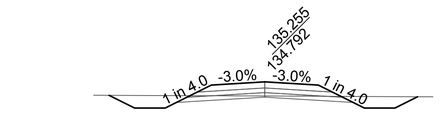
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Ch 3400.000



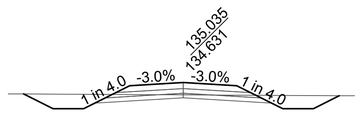
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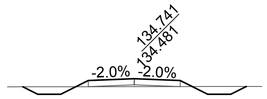
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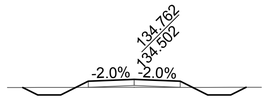
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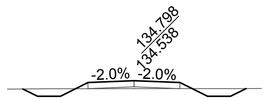
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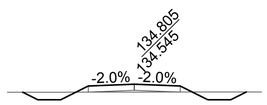
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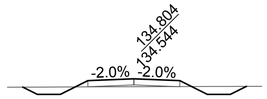
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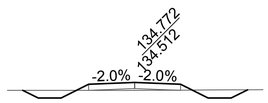
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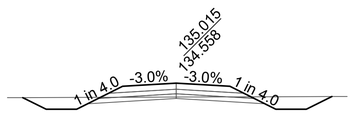
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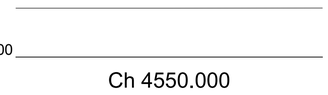
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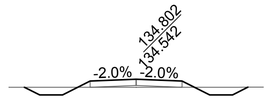
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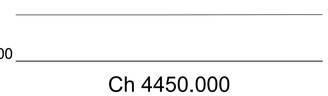
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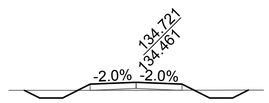
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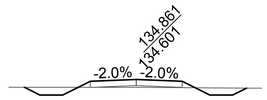
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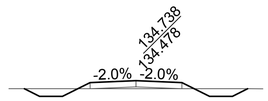
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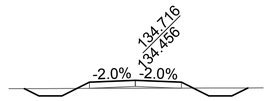
R.L. 132.800

Ch 4350.000



R.L. 132.700

Ch 4300.000



R.L. 132.700

Ch 4250.000

Scales: H 1 in200V 1 in100

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Cross Sections 04

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

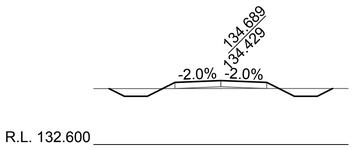
Dwg. No.
C52

Sheet
52 of 76

Revision
1

A1 SHEET

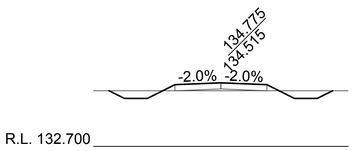
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Ch 4900.000

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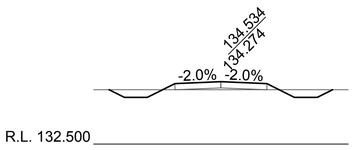
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Ch 4800.000

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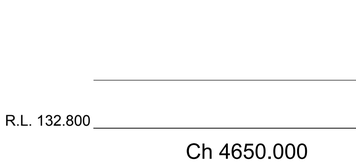
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Ch 4700.000

R.L. 132.800

Ch 4650.000

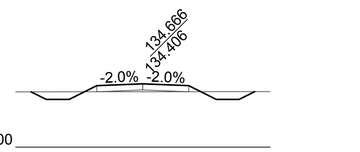


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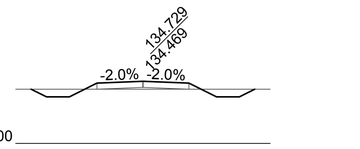
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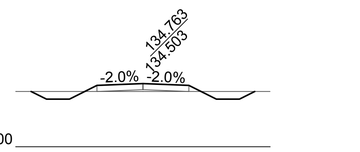
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Ch 5200.000



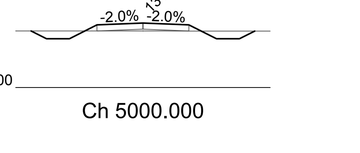
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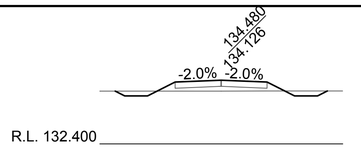
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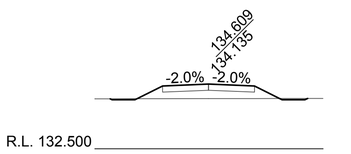
Ch 5000.000

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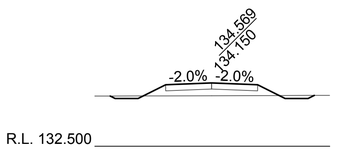
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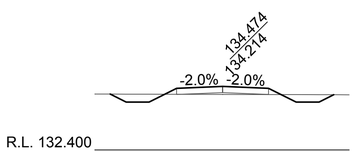
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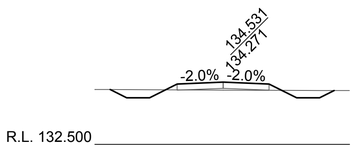
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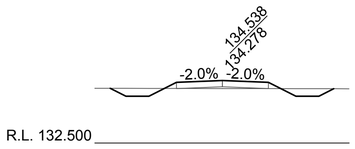
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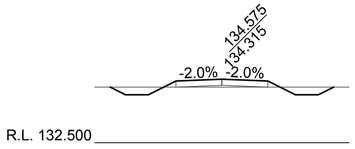
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Ch 5400.000



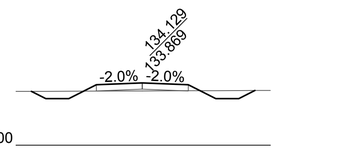
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Ch 5300.000

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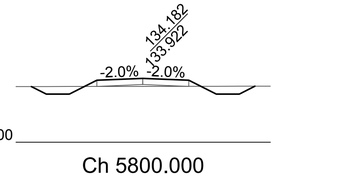
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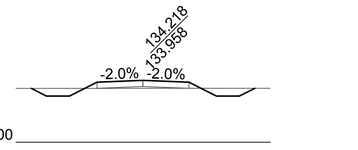
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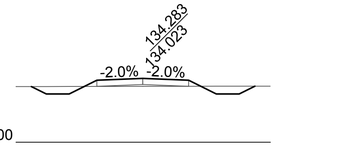
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Ch 5800.000



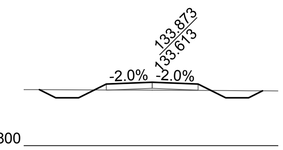
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Ch 5700.000

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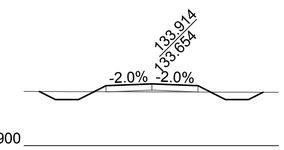
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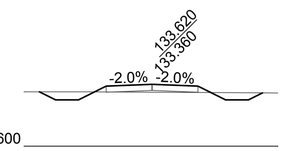
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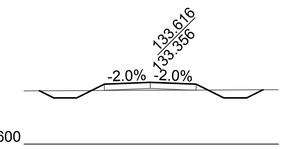
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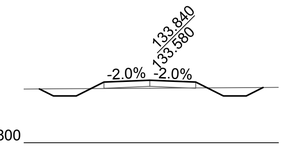
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Ch 6100.000



Ch 6050.000



Ch 6000.000

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Cross Sections 05

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

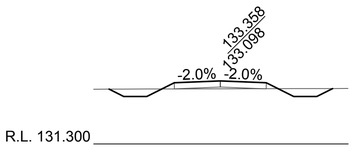
Dwg. No.: C53

Sheet: 53 of 76

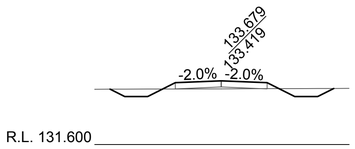
Revision: 1

A1 SHEET

0 100mm 200mm 300mm



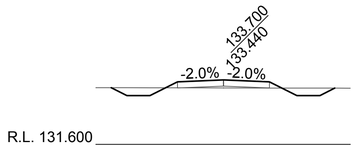
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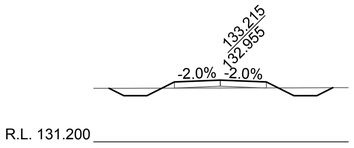
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Ch 7350.000



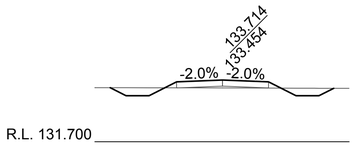
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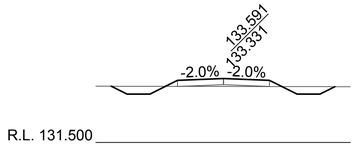
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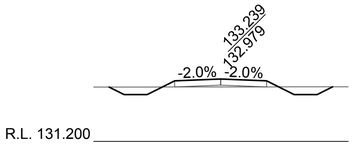
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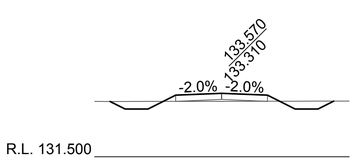
Ch 7300.000



Ch 7650.000



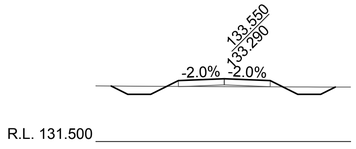
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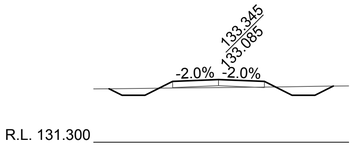
Ch 6900.000



Ch 7250.000



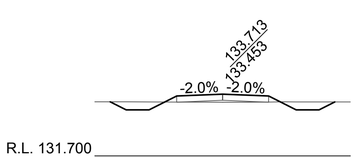
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Ch 6500.000



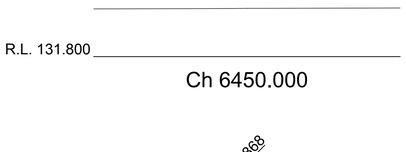
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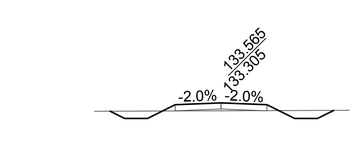
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Ch 7550.000

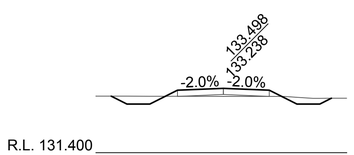


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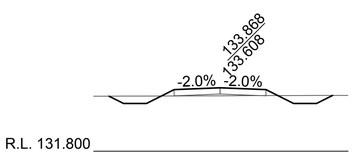


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Ch 7150.000



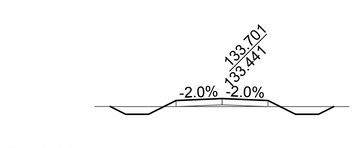
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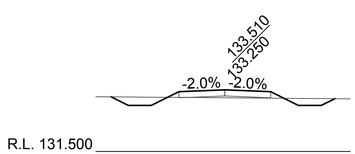
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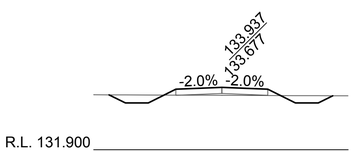
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Ch 7100.000

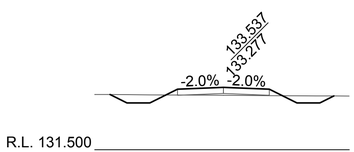


Ch 7450.000



Scales: H 1 in200V 1 in100

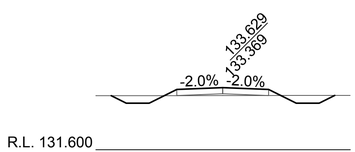
Ch 6350.000



Ch 6700.000



Ch 7050.000



Ch 7400.000

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Access Road Cross Sections 06

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

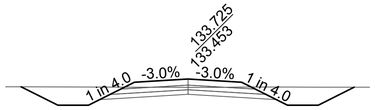
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C54

Sheet
54 or 76

Revision
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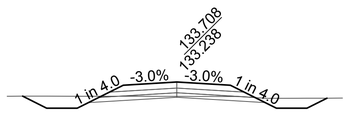
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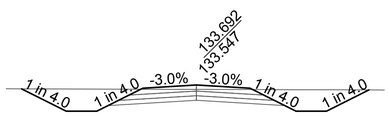
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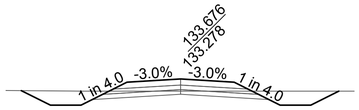
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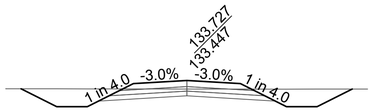
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Ch 7800.000



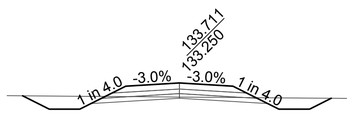
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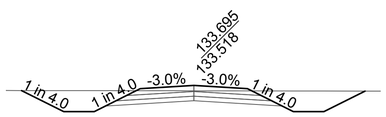
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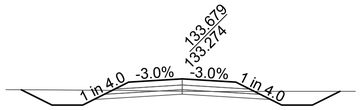
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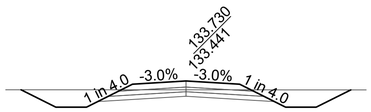
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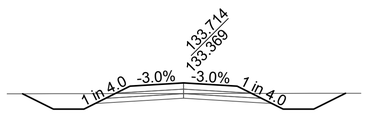
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Ch 8050.000



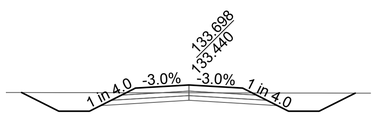
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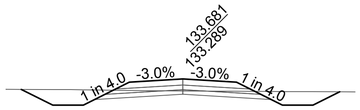
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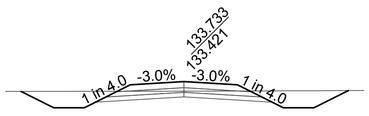
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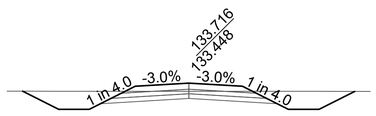
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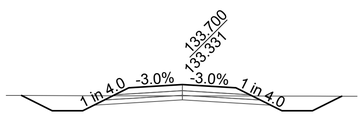
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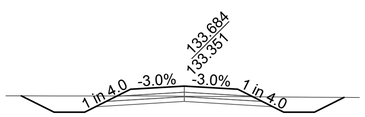
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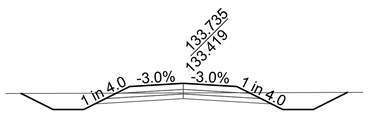
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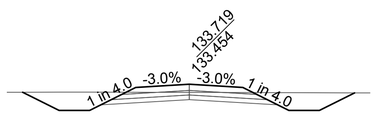
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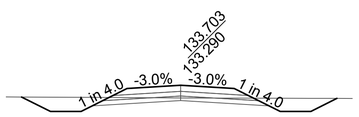
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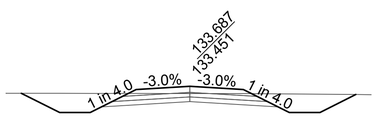
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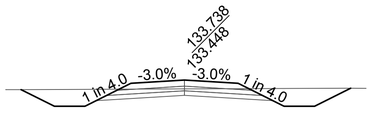
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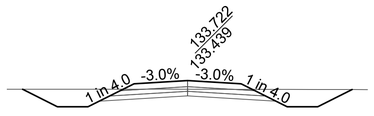
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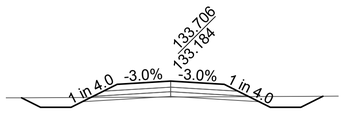
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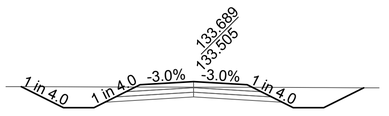
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Ch 7250.000



R.L. 131.300

Ch 7550.000



R.L. 131.300

Ch 7850.000

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Cross Sections 07

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

Dwg. No.: C55

Sheet: 55 of 76

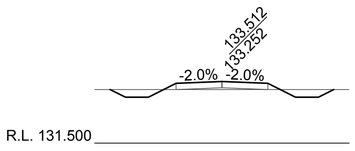
Revision: 1

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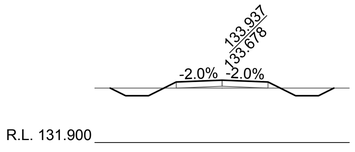
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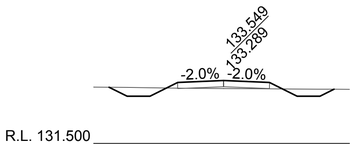
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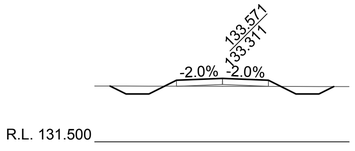
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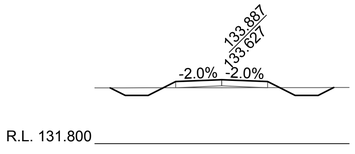
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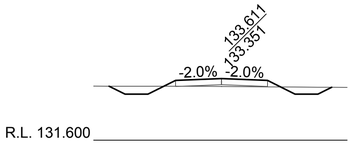
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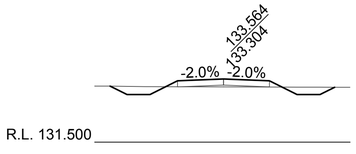
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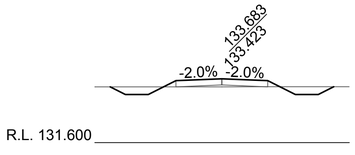
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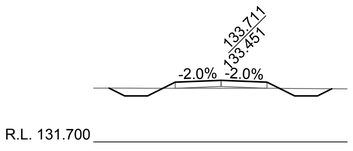
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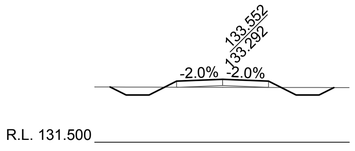
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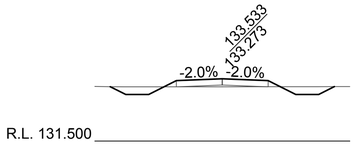
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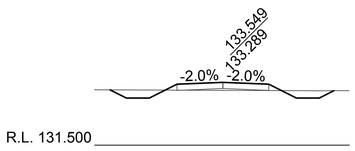
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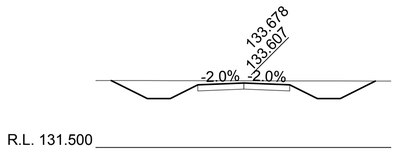
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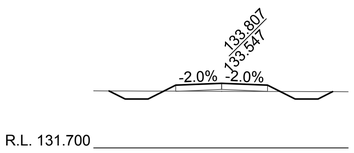
Ch 8200.000



Ch 8550.000



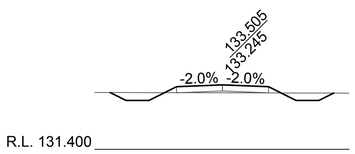
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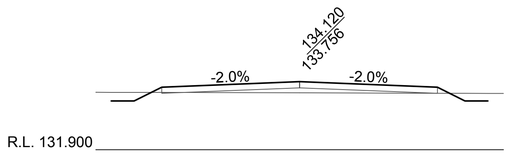
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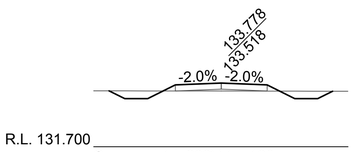
Ch 8150.000



Ch 8500.000

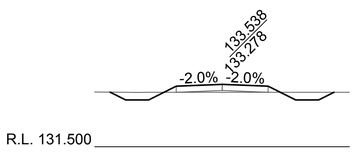


Ch 8920.000

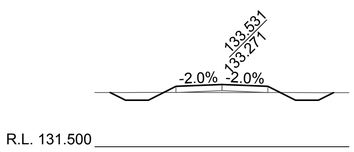


Scales: H 1 in200V 1 in100

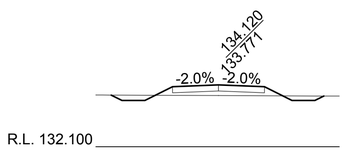
Ch 7750.000



Ch 8100.000



Ch 8450.000



Ch 8900.000

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1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Access Road Cross Sections 08

Client: ProTen

Scales: 1:1000

Client Project No.

Architect / Project Manager

Project Number: 15W013

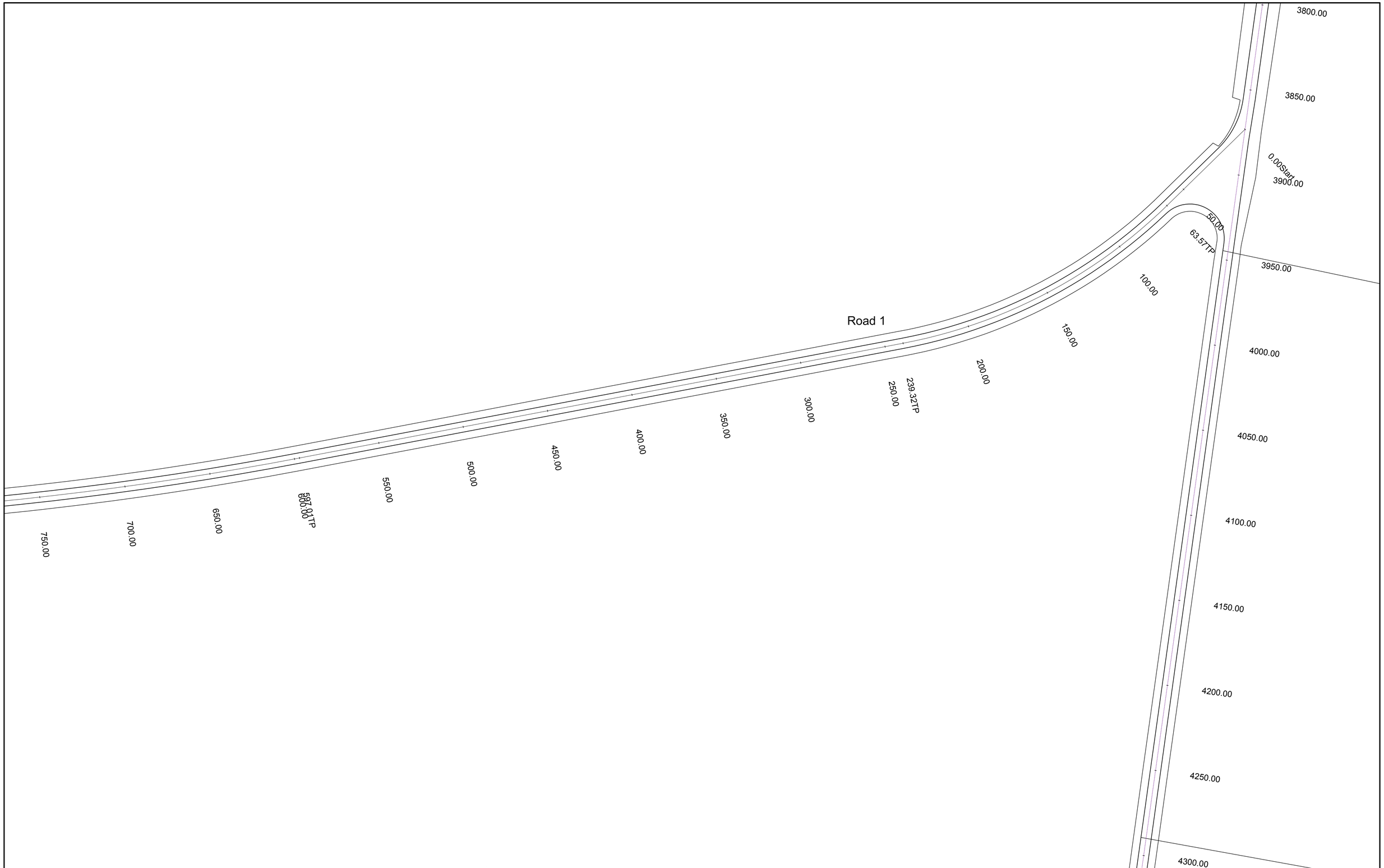
Dwg. No.: C56

Sheet: 56 or 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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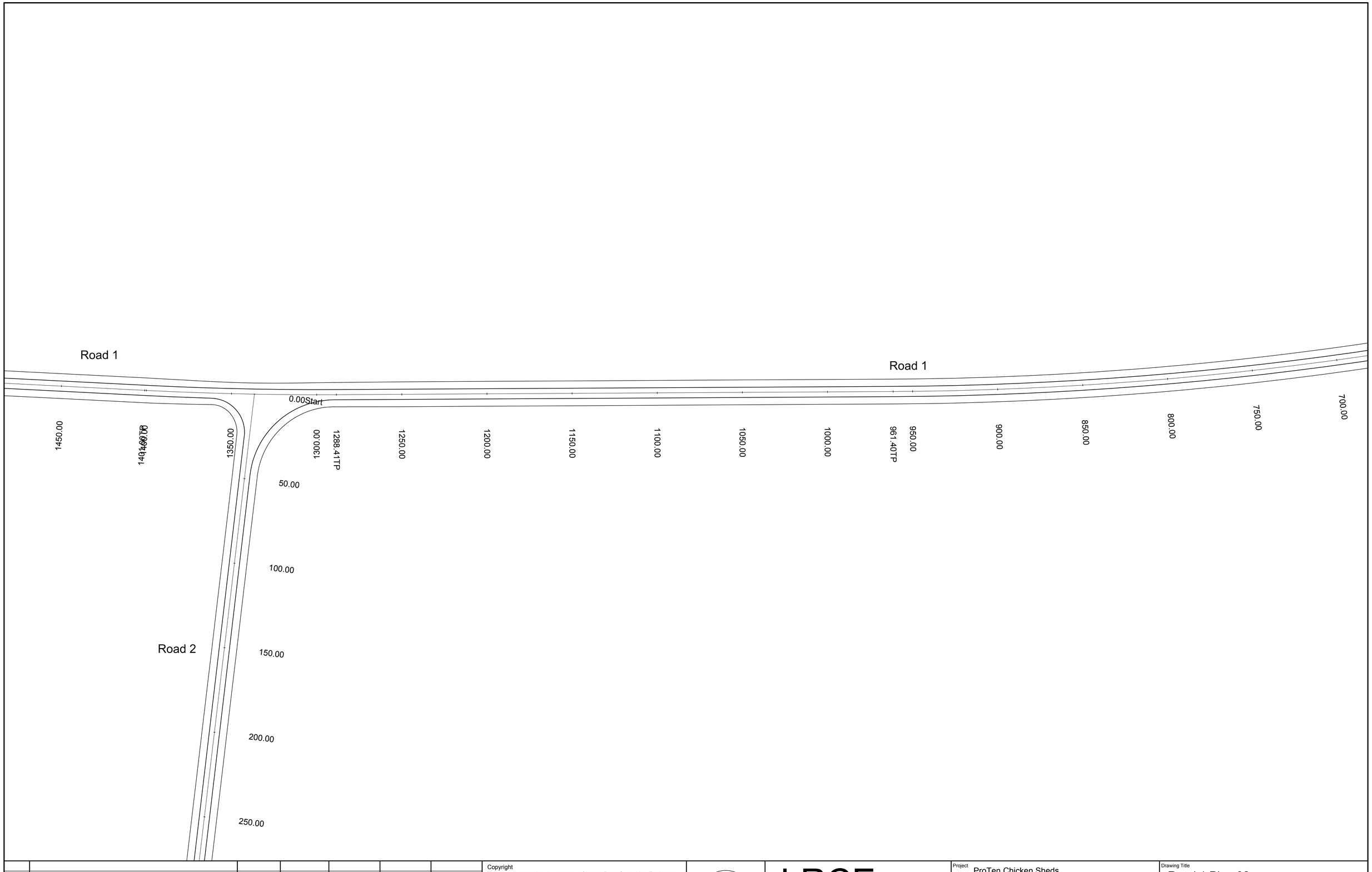
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Project	ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700
Client	ProTen
Architect / Project Manager	
Drawing Title	Road 1 Plan 01
Scales	1:1000
Client Project No.	
Project Number	15W013
Dwg. No.	C57
Sheet	57 of 76
Revision	1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client
ProTen

Architect / Project Manager

Drawing Title
Road 1 Plan 02

Scales
1:1000

Client Project No.

Project Number
15W013

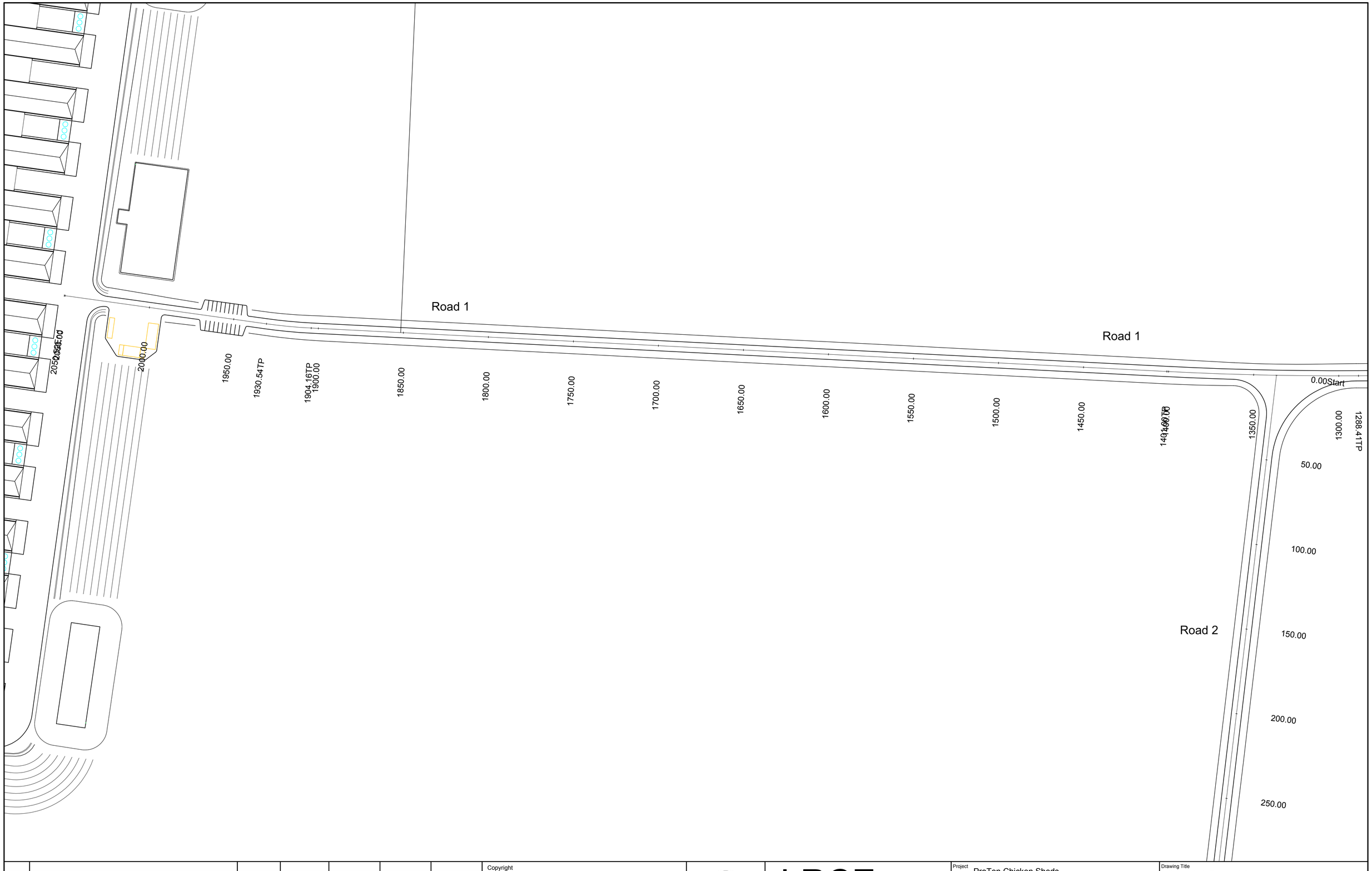
Dwg. No.
C58

Sheet
58 of 76

Revision
1

0 100mm 200mm 300mm

A1 SHEET



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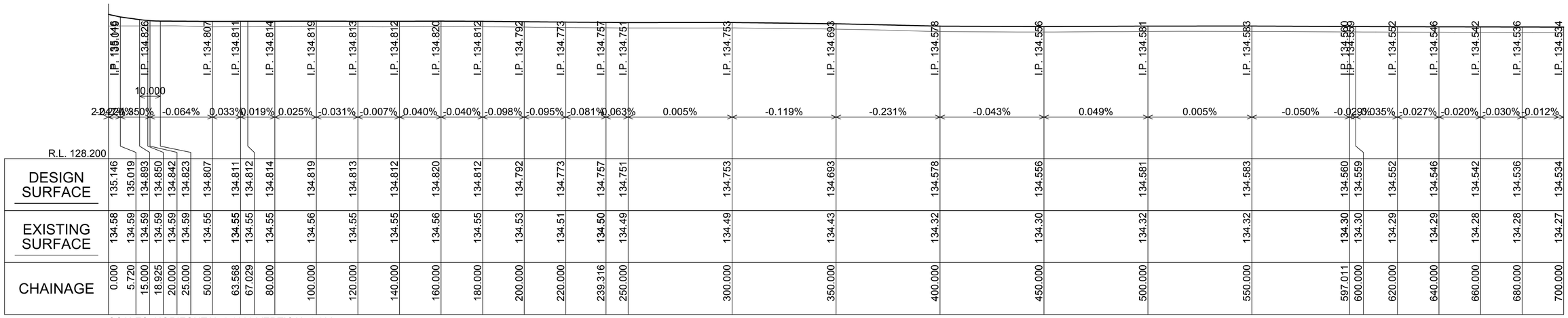
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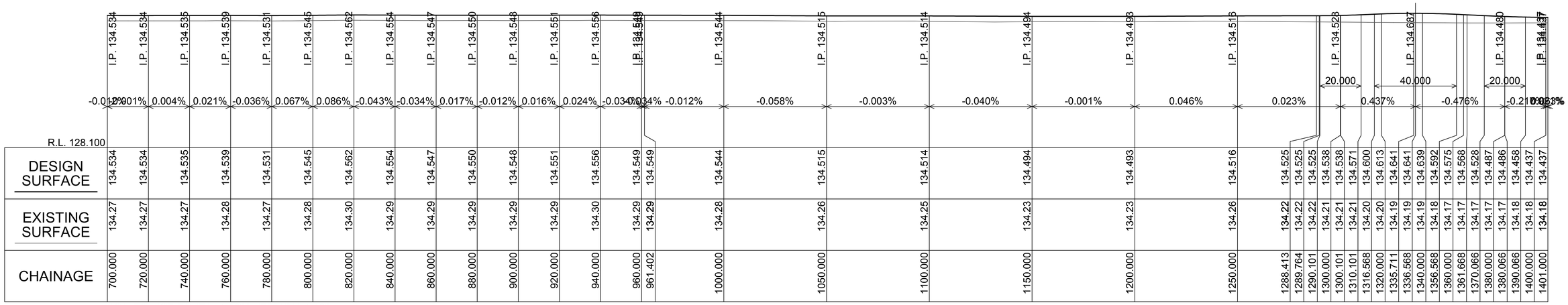
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Client: ProTen		Scales: 1:1000	Client Project No.
Architect / Project Manager		Project Number: 15W013	Dwg. No.: C59
		Sheet: 59 of 76	Revision: 1

0 100mm 200mm 300mm A1 SHEET



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 1



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 1

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Road 1 Long Sections 01

Scales: 1:1000

Client Project No.

Project Number: 15W013

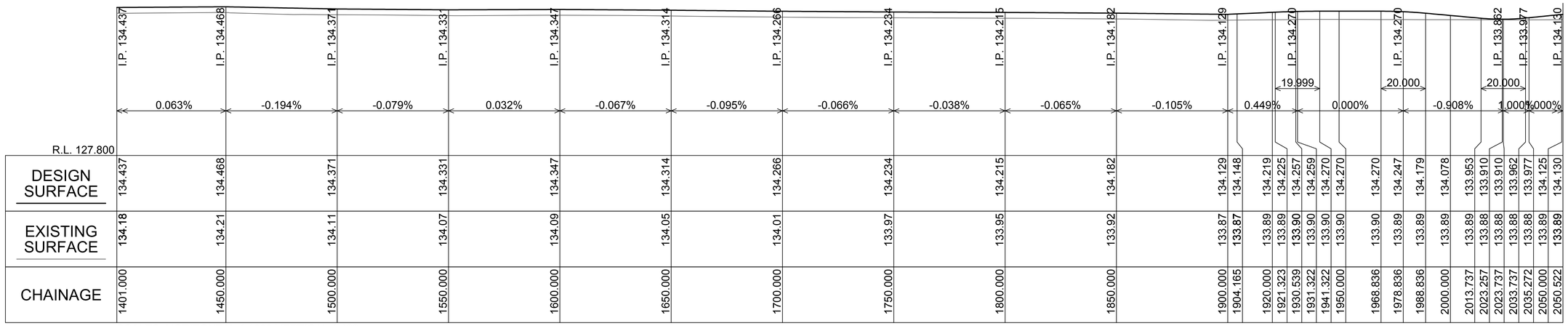
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Sheet: 60 or 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 1

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 1 Long Sections 02

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

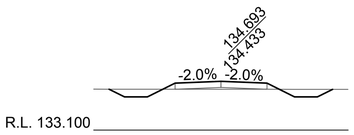
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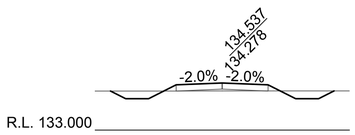
Revision: 1

A1 SHEET

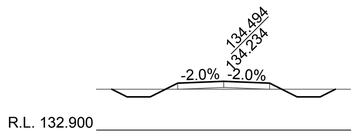
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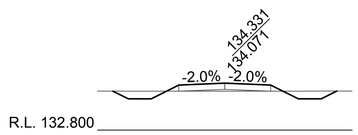
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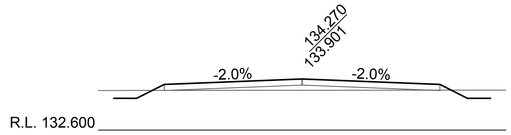
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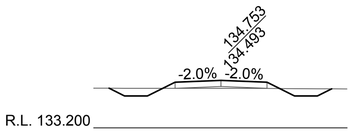
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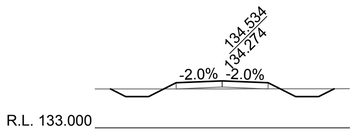
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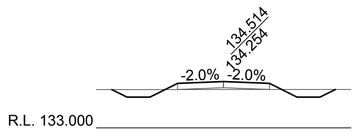
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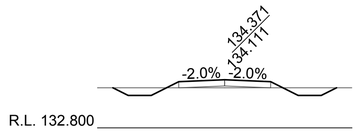
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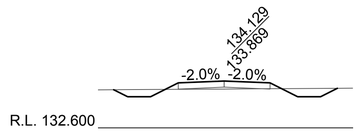
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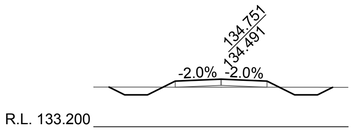
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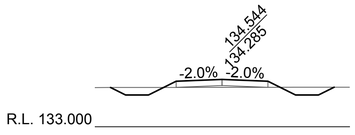
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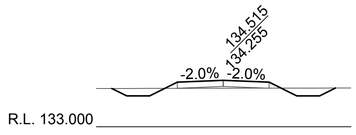
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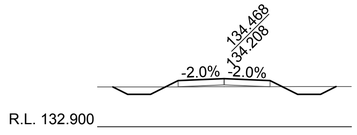
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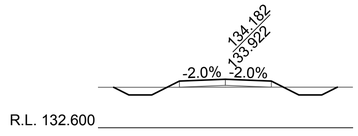
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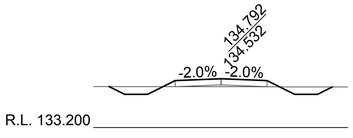
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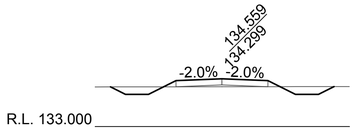
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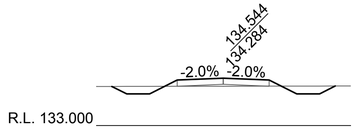
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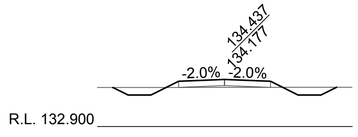
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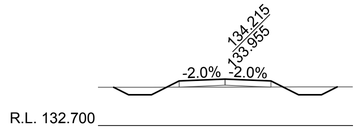
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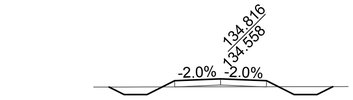
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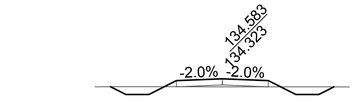
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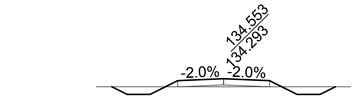
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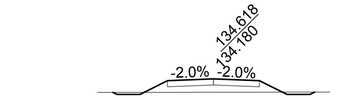
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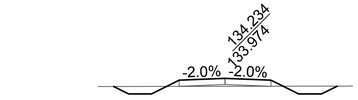
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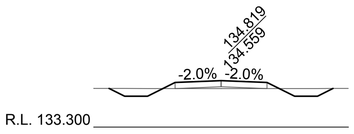
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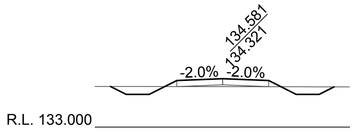
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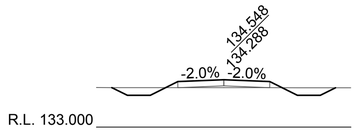
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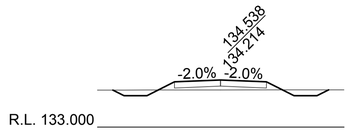
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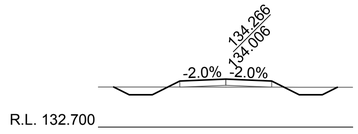
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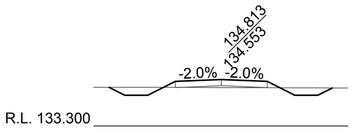
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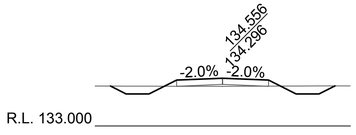
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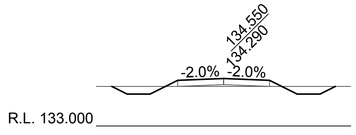
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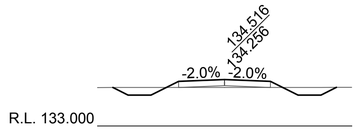
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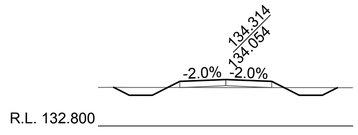
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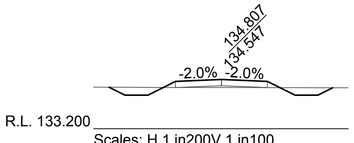
Ch 850.000



Ch 1250.000

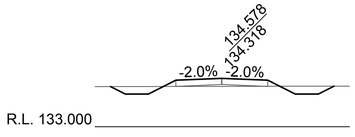


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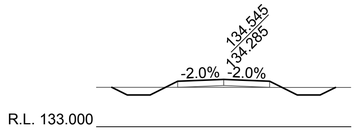


Scales: H 1 in200V 1 in100

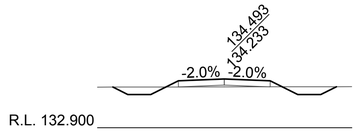
Ch 50.000



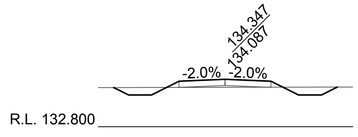
Ch 400.000



Ch 800.000



Ch 1200.000



Ch 1600.000

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1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 1 Cross Sections 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

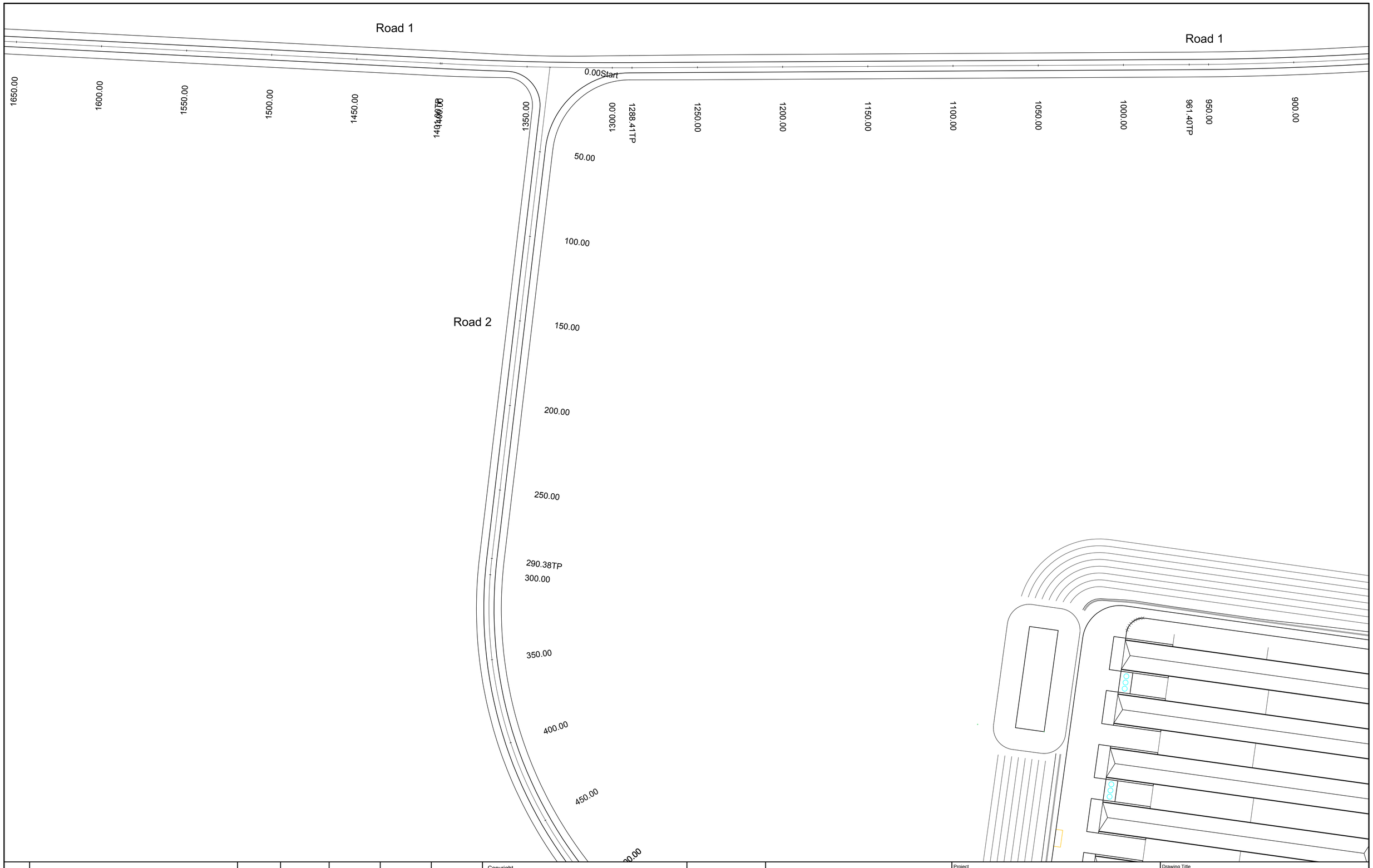
Dwg. No.: C62

Sheet: 62 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Road 2 Plan 01

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

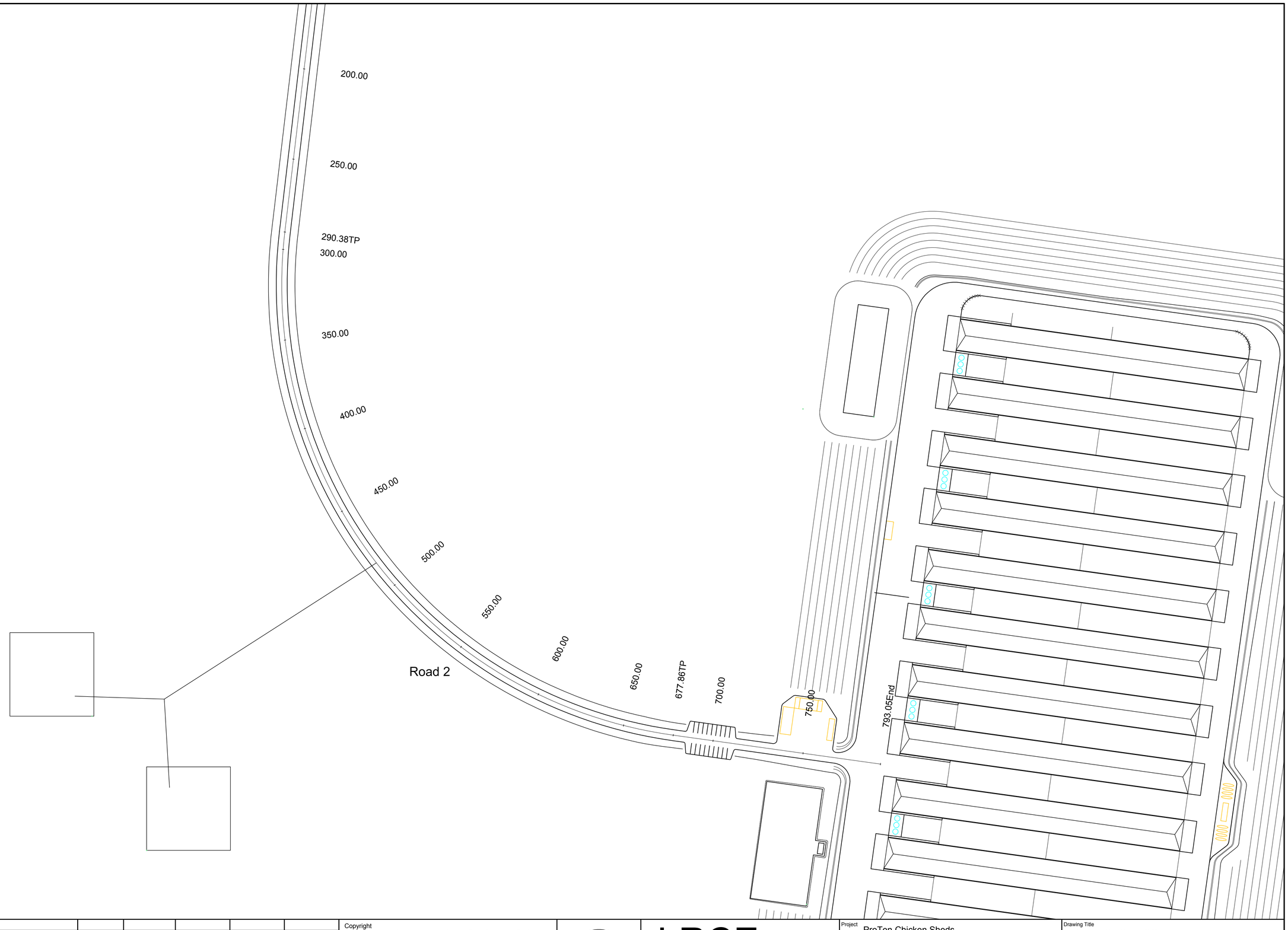
Dwg. No.
C63

Sheet
63 of 76

Revision
1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 2 Plan 02

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

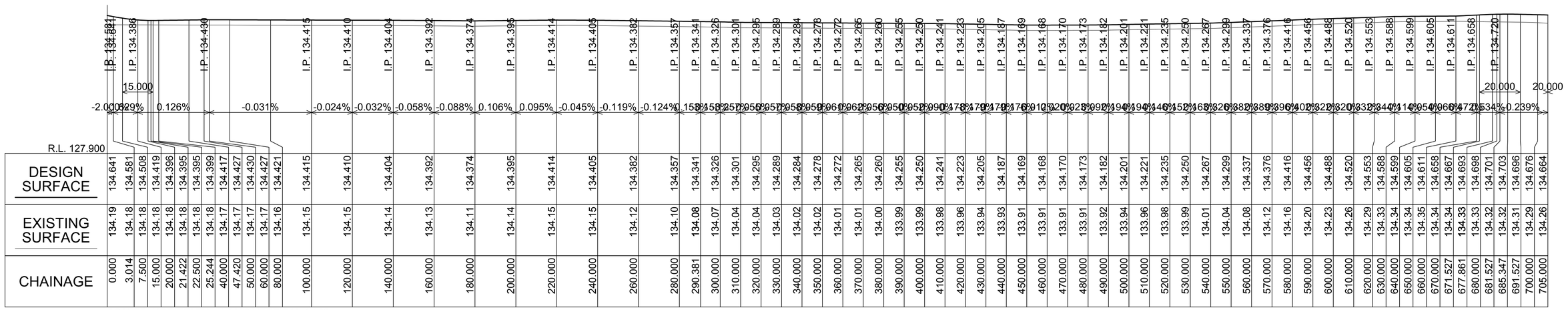
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Sheet: 64 or 76

Revision: 1

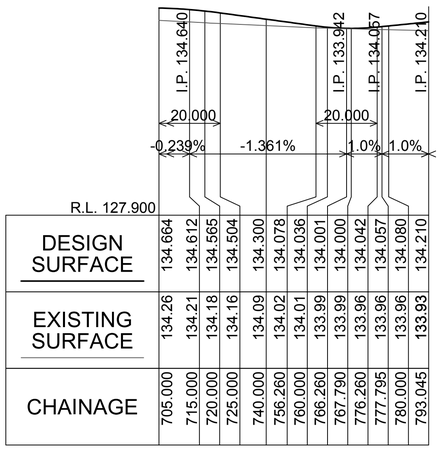
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A1 SHEET



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 2



Road 2

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 2 Long Sections 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

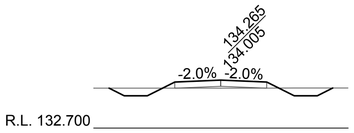
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Sheet: 65 of 76

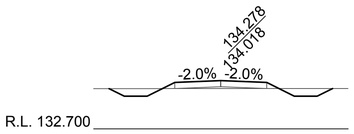
Revision: 1

A1 SHEET

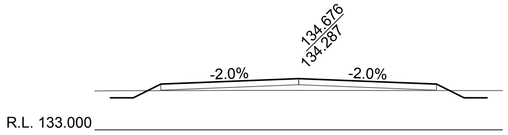
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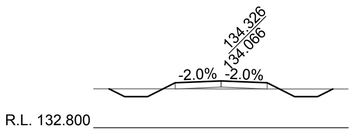
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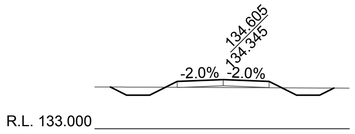
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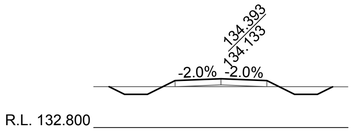
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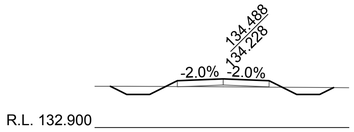
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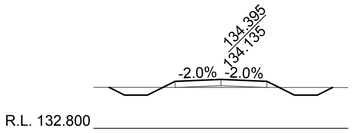
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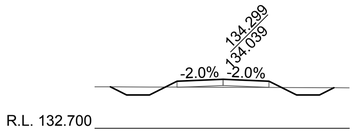
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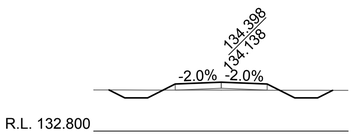
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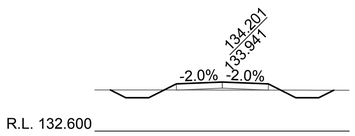
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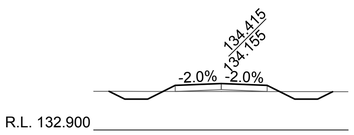
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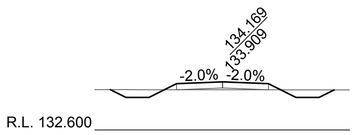
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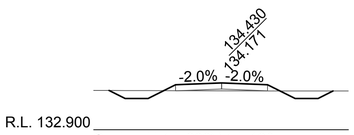
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Ch 100.000

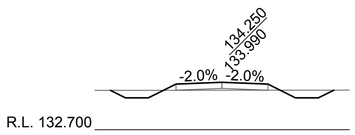


Ch 450.000



Scales: H 1 in200V 1 in100

Ch 50.000



Ch 400.000

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 2 Cross Sections 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

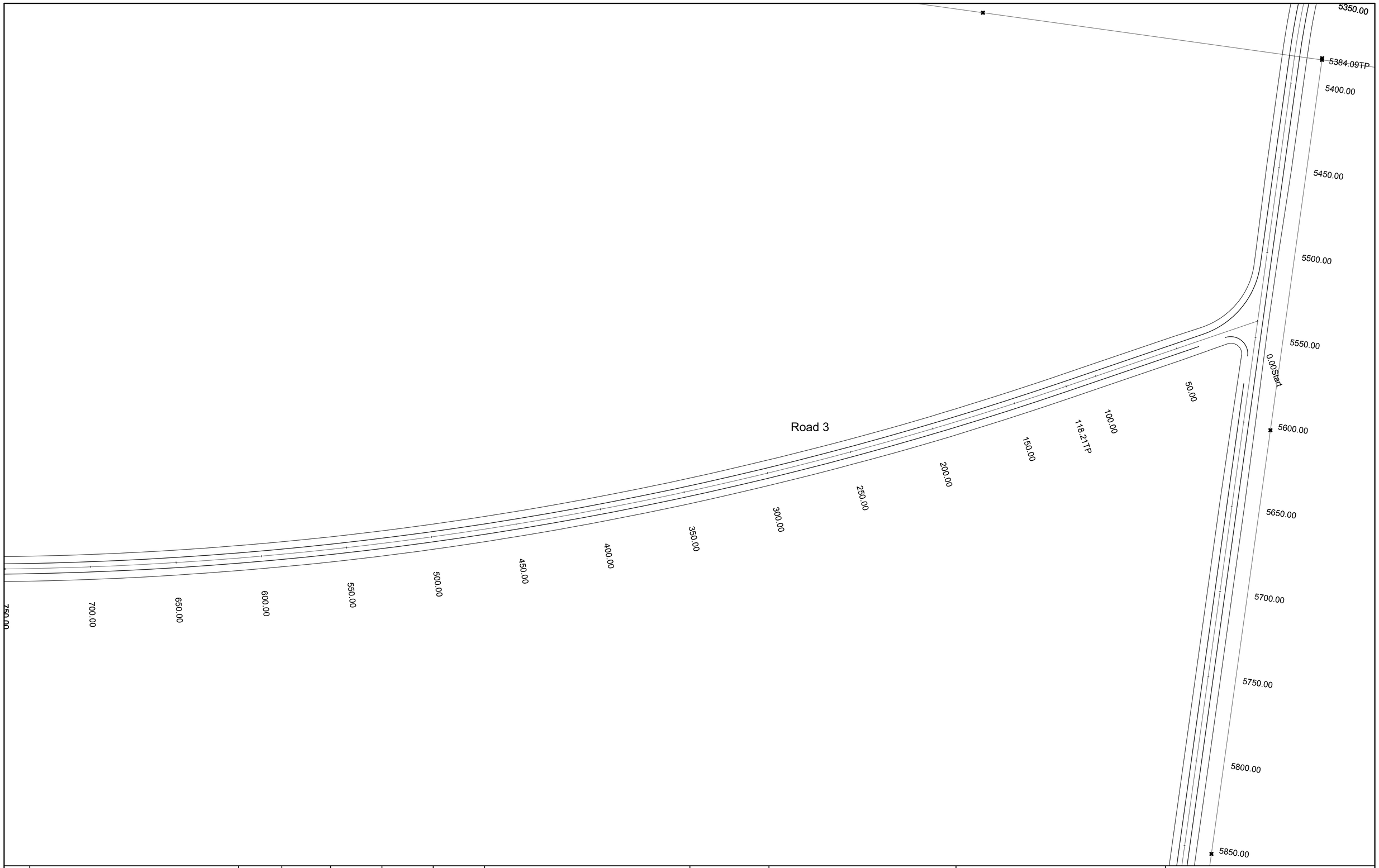
Dwg. No.: C66

Sheet: 66 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 3 Plan 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

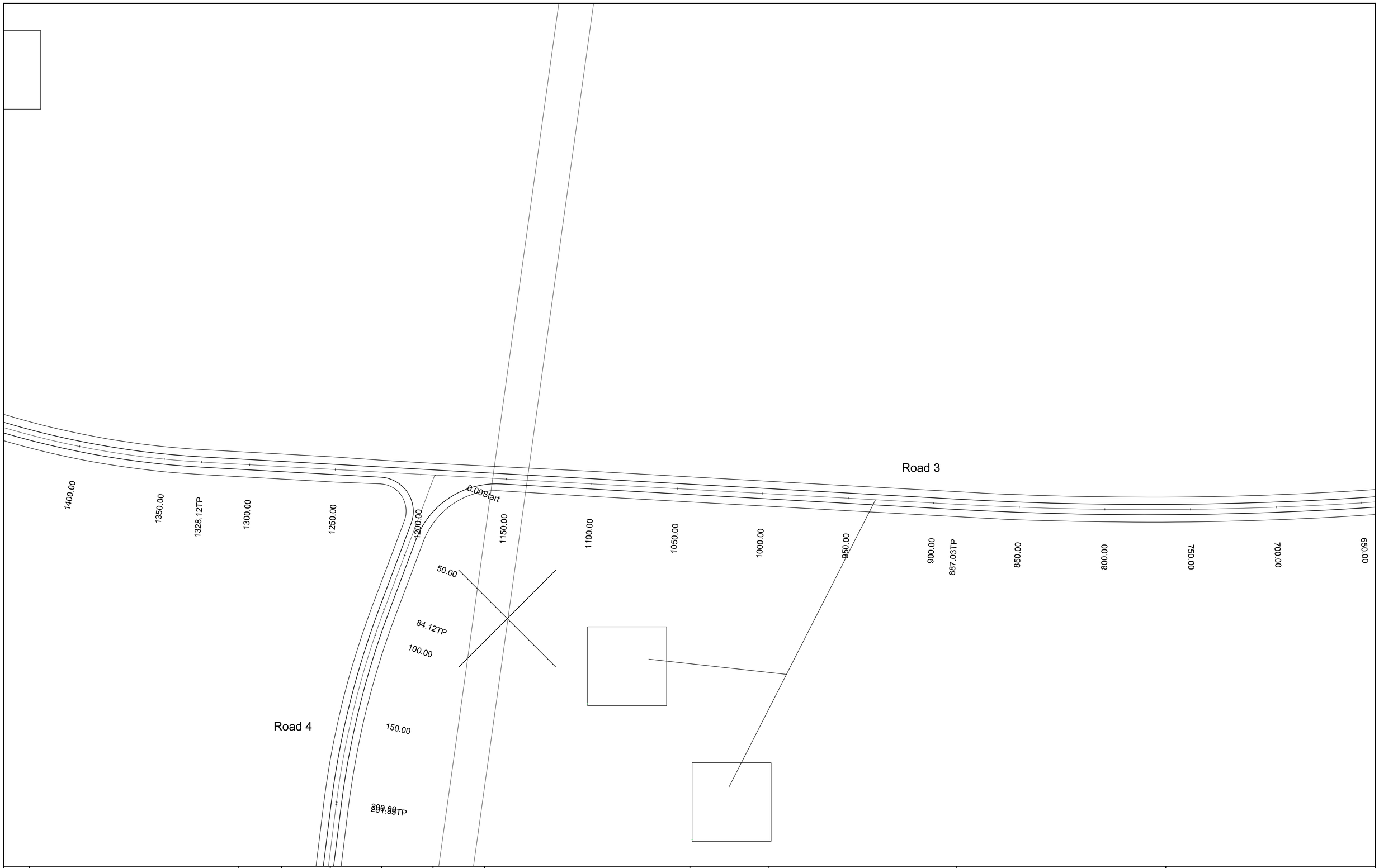
Dwg. No.: C67

Sheet: 67 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 3 Plan 02

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

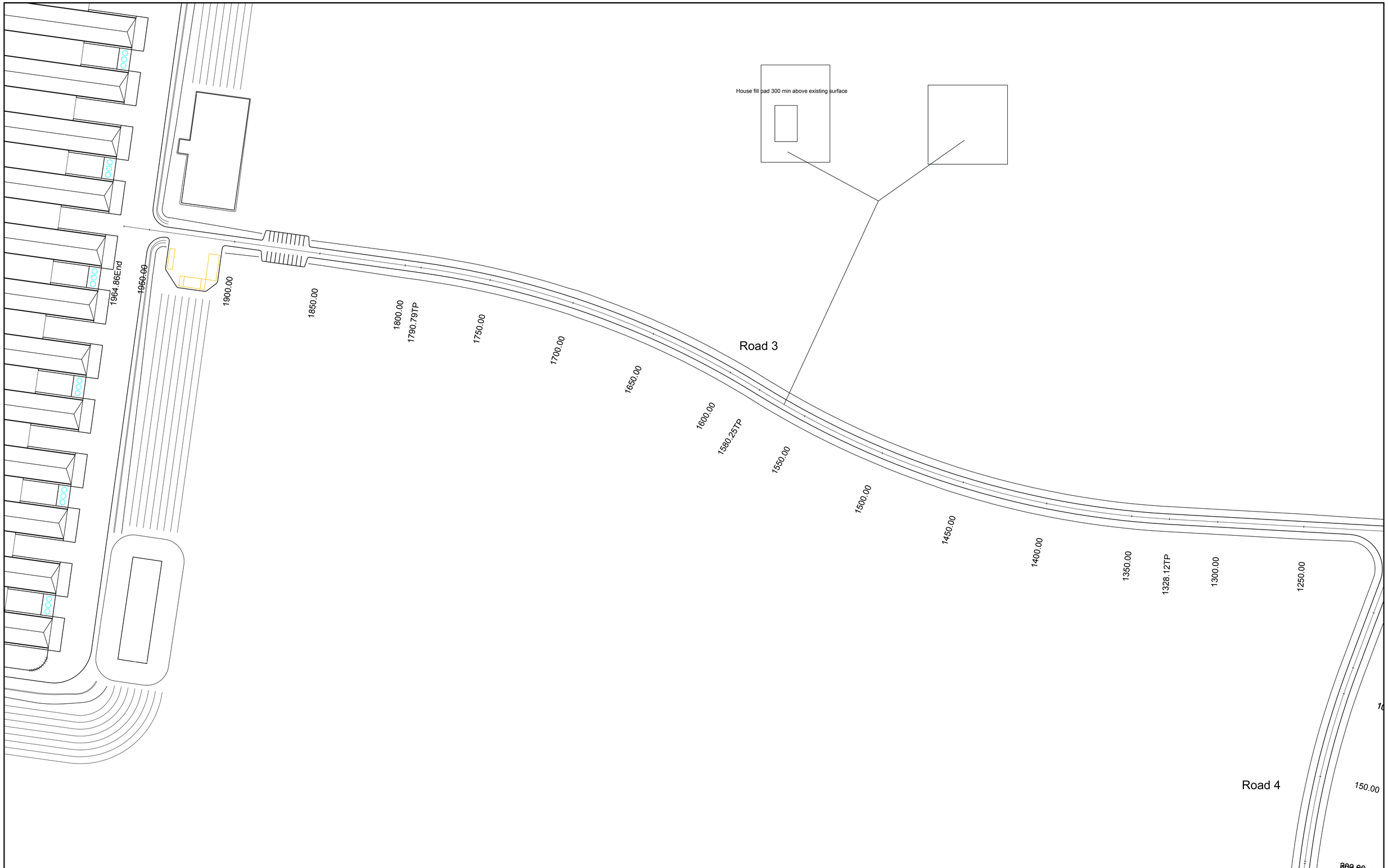
Dwg. No.: C68

Sheet: 68 of 76

Revision: 1

A1 SHEET

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Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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PH : (02) 6921 1877
FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project
ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title
Road 3 Plan 03

Client
ProTen

Scales
1:1000

Client Project No.

Architect / Project Manager

Project Number
15W013

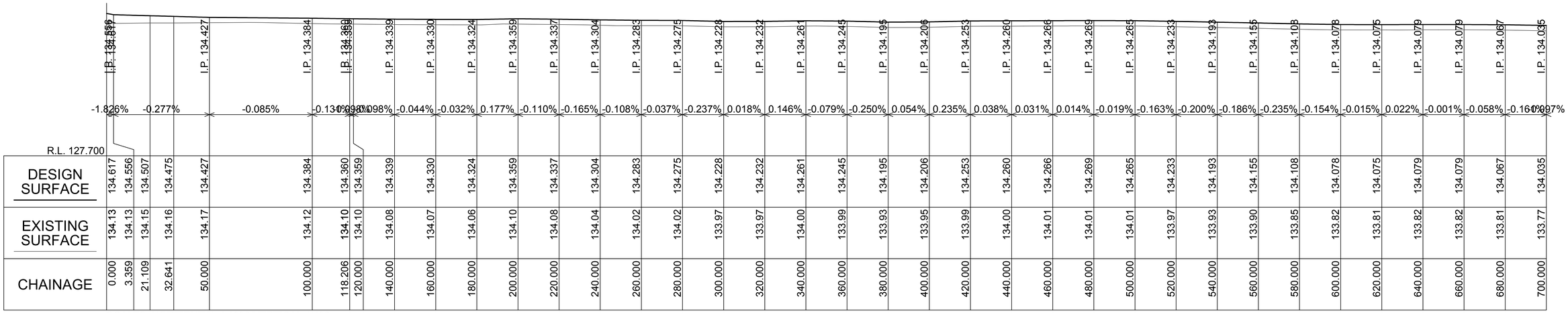
Dwg. No.
C69

Sheet
69 of 76

Revision
1

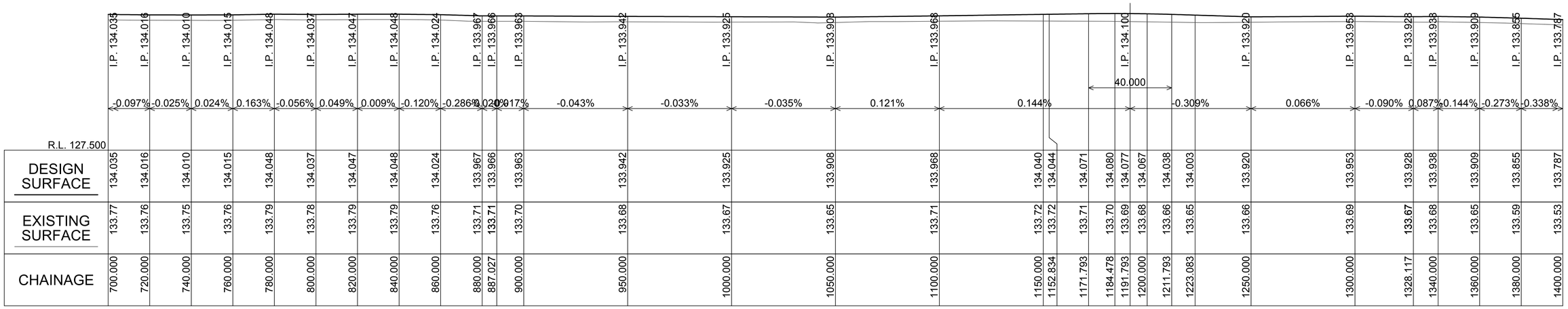
A1 SHEET

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SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 3



SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 3

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Road 3 Long Sections 01

Scales: 1:1000

Client Project No.

Project Number: 15W013

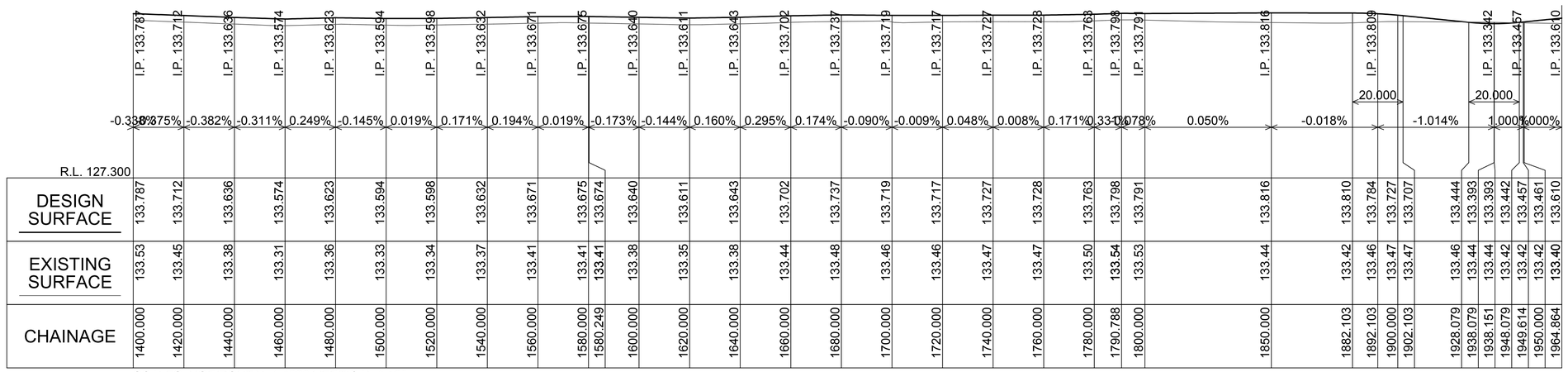
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Sheet: 70 of 76

Revision: 1

A1 SHEET

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SCALES: HORIZONTAL 1:1000 VERTICAL 1:100

Road 3

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
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FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 3 Long Sections 02

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager

Project Number: 15W013

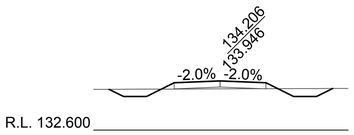
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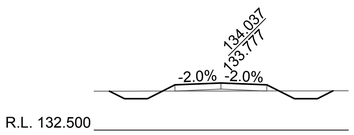
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A1 SHEET

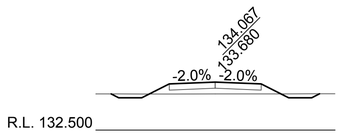
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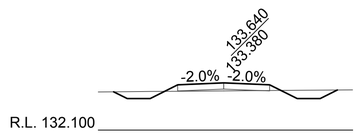
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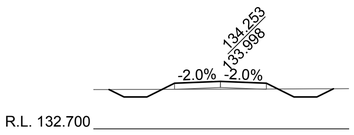
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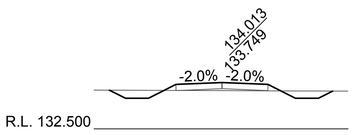
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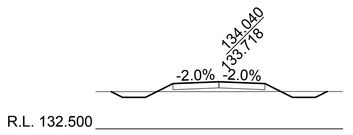
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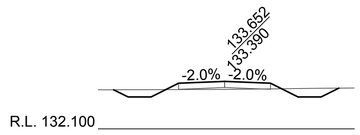
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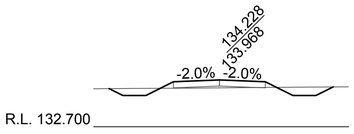
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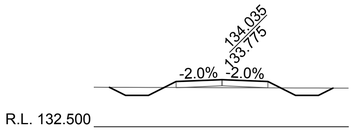
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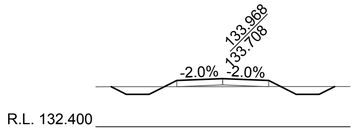
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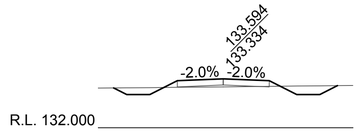
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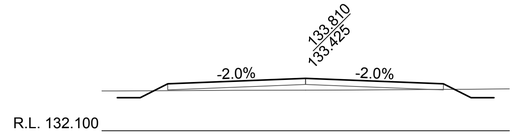
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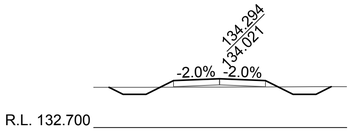
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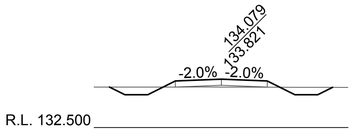
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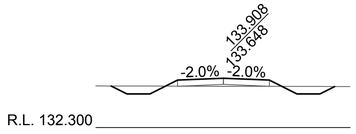
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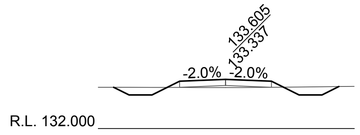
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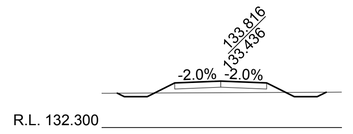
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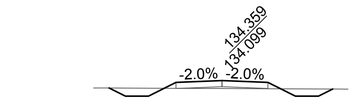
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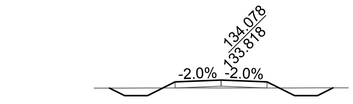
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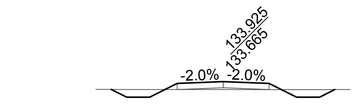
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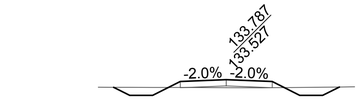
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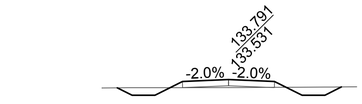
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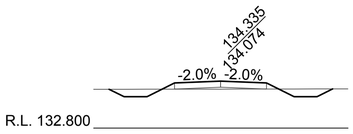
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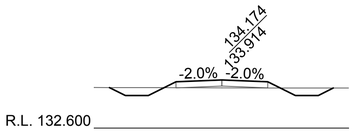
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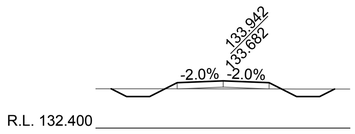
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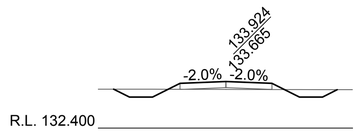
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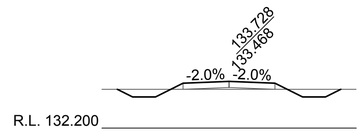
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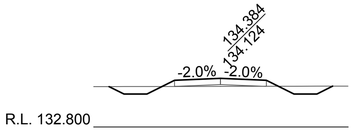
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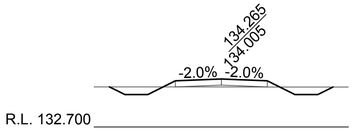
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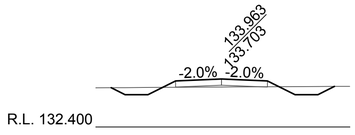
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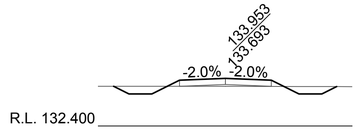
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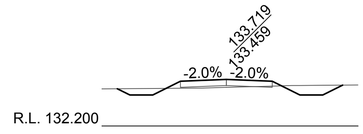
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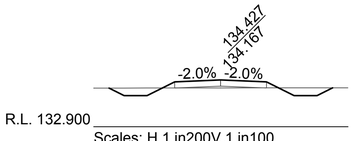
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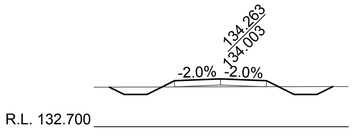


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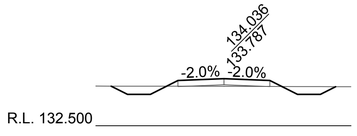


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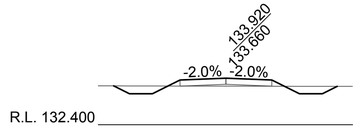
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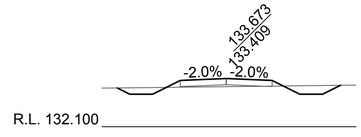
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Ch 850.000



Ch 1250.000



Ch 1650.000

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Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager

Drawing Title: Road 3 Cross Sections 01

Scales: 1:1000

Client Project No.

Project Number: 15W013

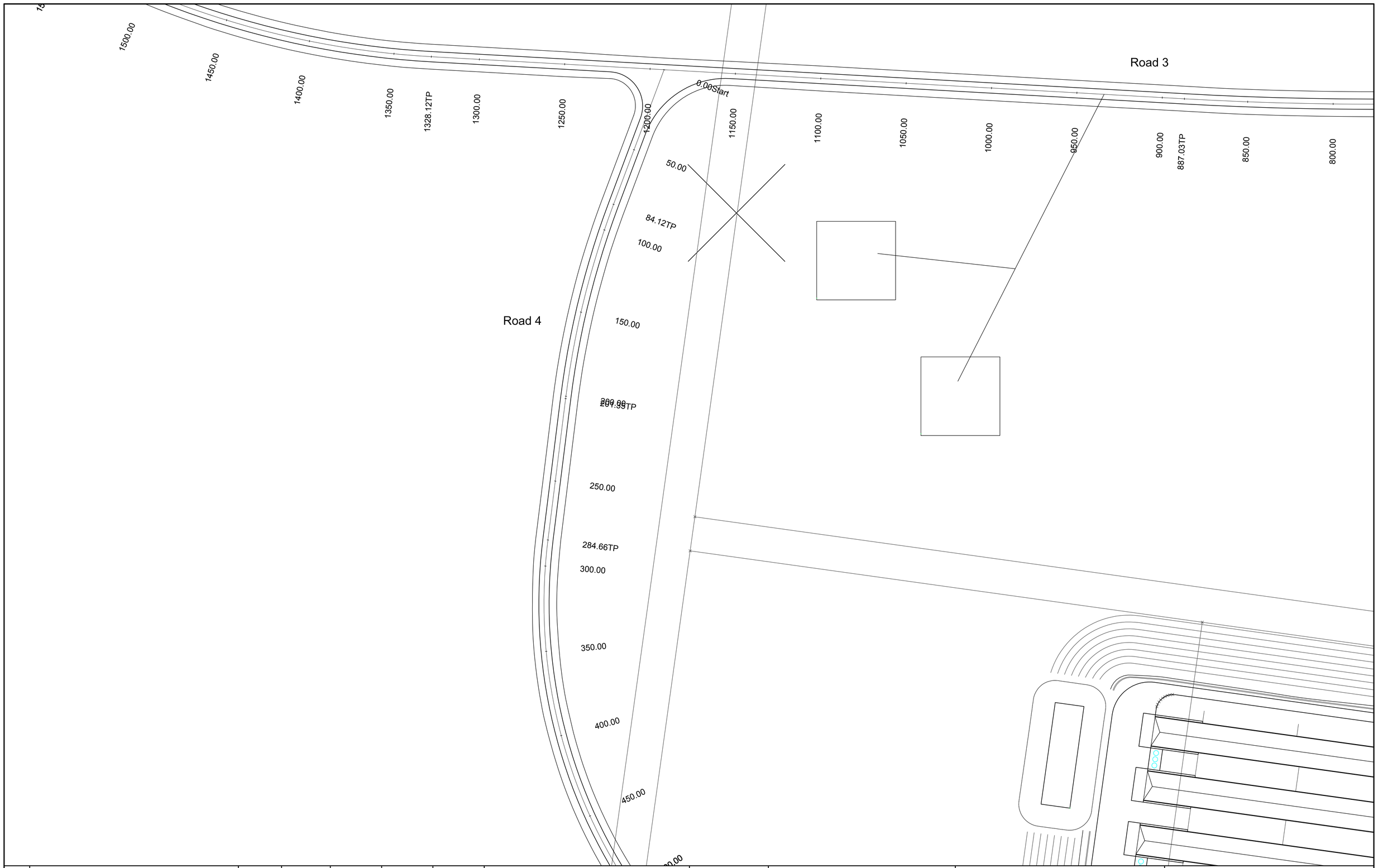
Dwg. No.: C72

Sheet: 72 of 76

Revision: 1

A1 SHEET

0 100mm 200mm 300mm



1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	
Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by ✕ = Not verified	Issue authorised (*)

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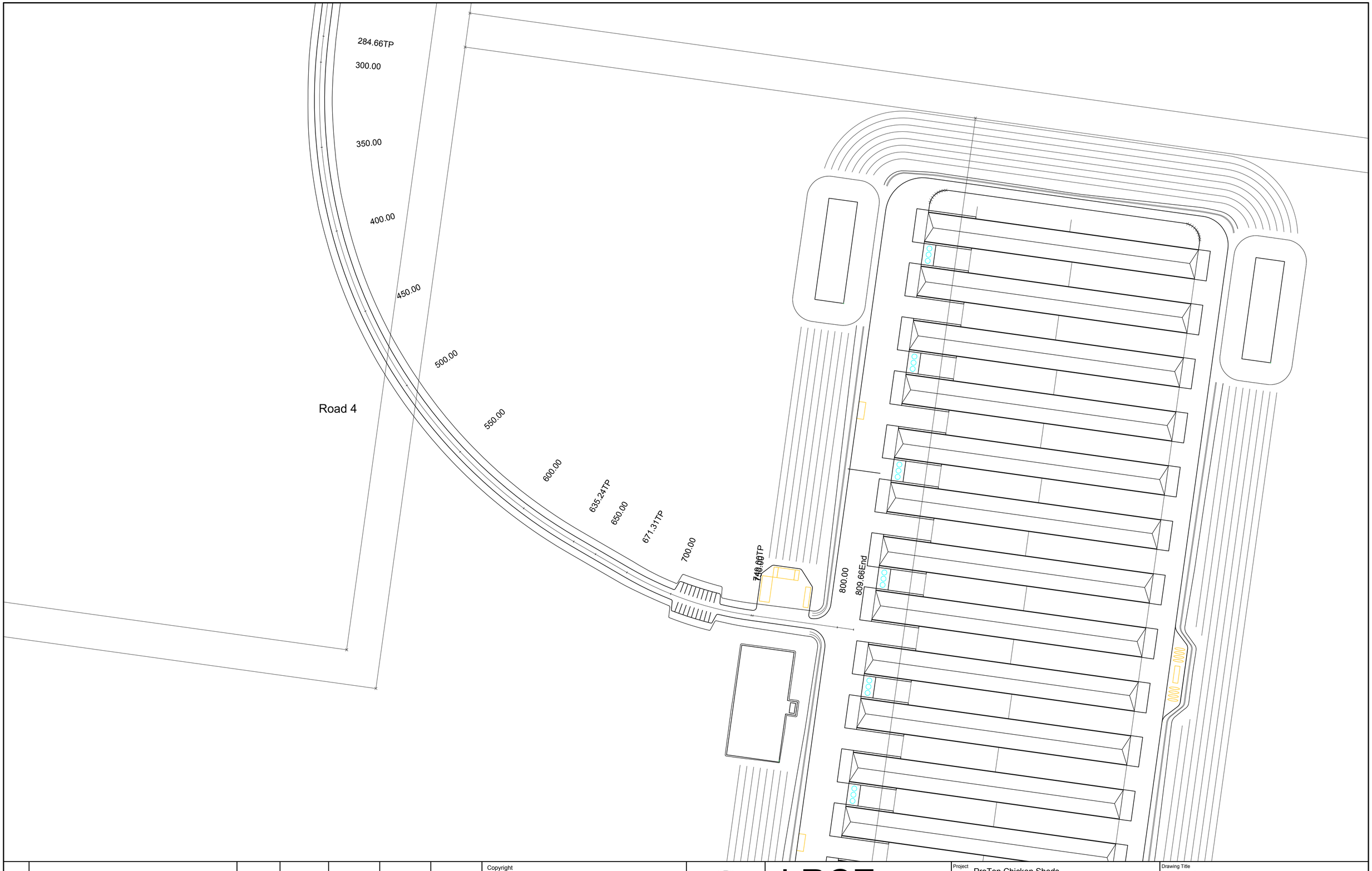
North

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Lance Ryan Consulting Engineers Pty Ltd
Consulting Engineers Planners & Managers
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52 Johnston Street,
WAGGA WAGGA NSW 2650
P.O. Box 7
WAGGA WAGGA NSW 2650
PH: (02) 6921 1877
FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds ProTen Narrandera Lot 42, Sturt Highway Euroley NSW 2700		Drawing Title: Road 4 Plan 01	
Client: ProTen		Scales: 1:1000	Client Project No.
Architect / Project Manager	Project Number: 15W013	Dwg. No.: C73	Sheet: 73 of 76 / Revision: 1

A1 SHEET

0 100mm 200mm 300mm



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EMAIL: lancevryan@gmail.com

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Client: ProTen

Architect / Project Manager:

Drawing Title: Road 4 Plan 02

Scales: 1:1000

Client Project No.:

Project Number: 15W013

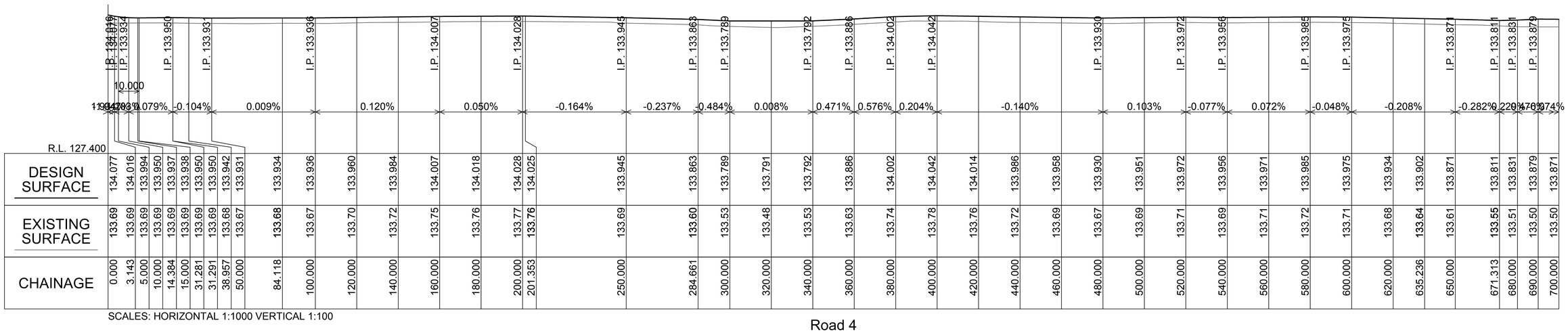
Dwg. No.: C74

Sheet: 74 of 76

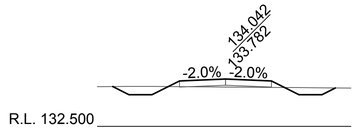
Revision: 1

A1 SHEET

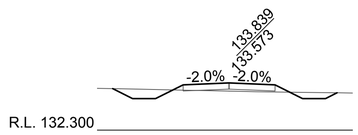
0 100mm 200mm 300mm


I.P. 134.016
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I.P. 133.936
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I.P. 134.028
I.P. 133.945
I.P. 133.863
I.P. 133.789
I.P. 133.792
I.P. 133.886
I.P. 134.002
I.P. 134.042
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I.P. 133.956
I.P. 133.985
I.P. 133.975
I.P. 133.871
I.P. 133.811
I.P. 133.831
I.P. 133.879
10.000
-0.079%
-0.104%
0.009%
0.120%
0.050%
-0.164%
-0.237%
-0.484%
0.008%
0.471%
0.576%
0.204%
-0.140%
0.103%
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0.074%
R.L. 127.400

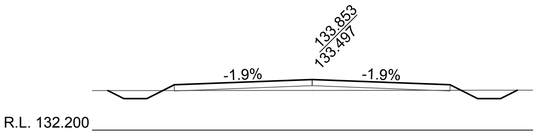
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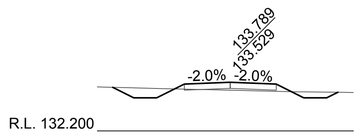
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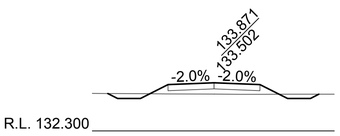
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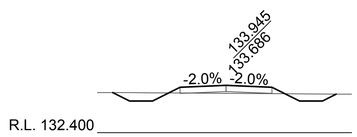
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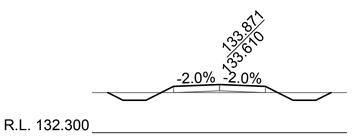
Ch 300.000



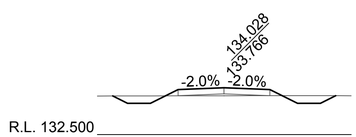
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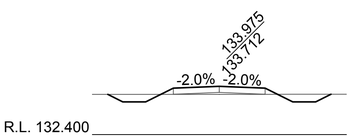
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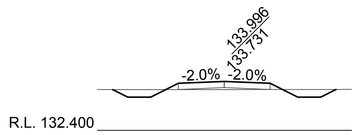
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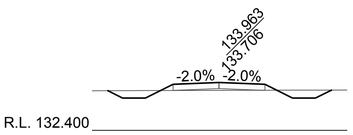
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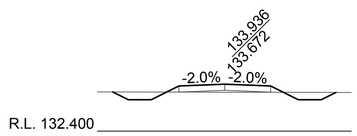
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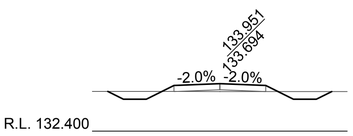
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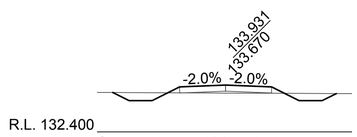
Ch 550.000



Ch 100.000

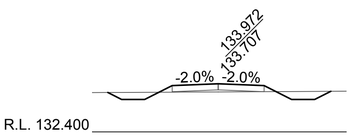


Ch 500.000



Scales: H 1 in200V 1 in100

Ch 50.000



Ch 450.000

Revision	Amendment or reason for issue	Issue date	Drawing completed by	Designed & dwg. checked by	Verified by X = Not verified	Issue authorised (*)
1	Issued for Information	2.06.2015	L.V.R.	L.V.R.	L.V.R.	

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P.O. Box 7
WAGGA WAGGA NSW 2650
PH: (02) 6921 1877
FAX: (02) 6921 7415
EMAIL: lancevryan@gmail.com

Project: ProTen Chicken Sheds
ProTen Narrandera
Lot 42, Sturt Highway
Euroley NSW 2700

Drawing Title: Road 4 Cross Sections 01

Client: ProTen

Scales: 1:1000

Client Project No.:

Architect / Project Manager:

Project Number: 15W013

Dwg. No.: C76

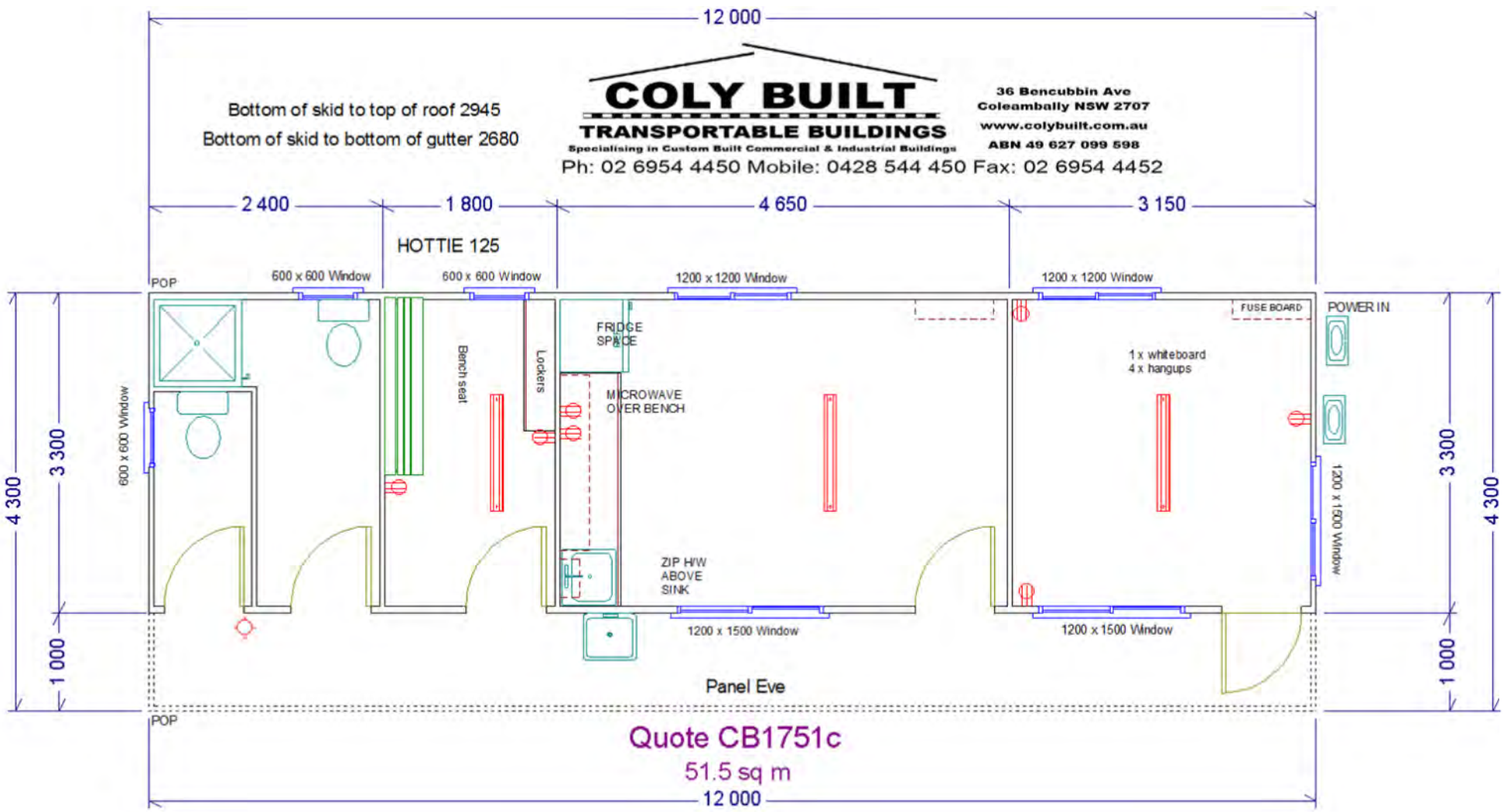
Sheet: 76 of 76

Revision: 1

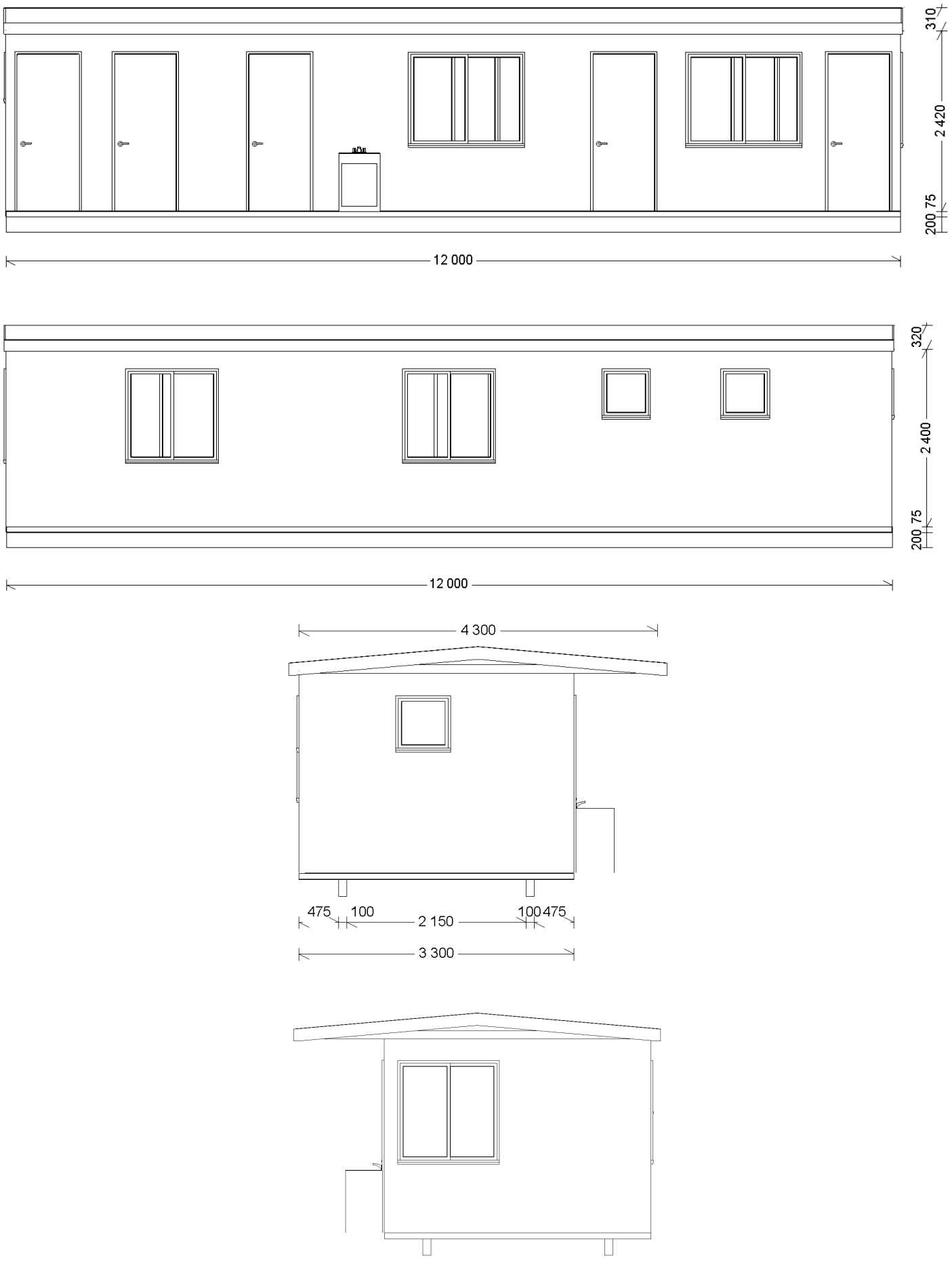
A1 SHEET

0 100mm 200mm 300mm

Amenities Buildings

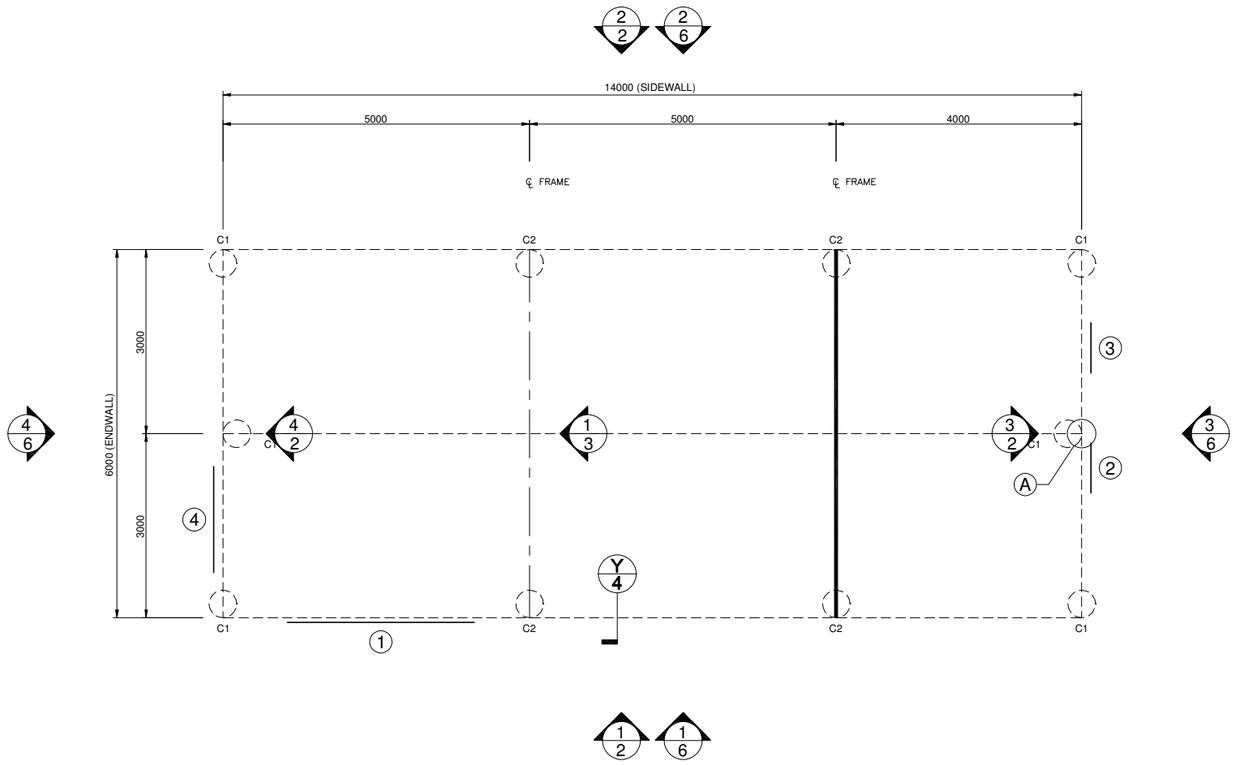

12 000
Bottom of skid to top of roof 2945
Bottom of skid to bottom of gutter 2680
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TRANSPORTABLE BUILDINGS
Specialising in Custom Built Commercial & Industrial Buildings
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Coleambally NSW 2707
www.colybuilt.com.au
ABN 49 627 099 598
Ph: 02 6954 4450 Mobile: 0428 544 450 Fax: 02 6954 4452
2 400
1 800
4 650
3 150
HOTTIE 125
POP
600 x 600 Window
600 x 600 Window
1200 x 1200 Window
1200 x 1200 Window
FUSE BOARD
POWER IN
FRIDGE SPACE
Bench seat
Lockers
MICROWAVE OVER BENCH
1 x whiteboard
4 x hangups
600 x 600 Window
1200 x 1500 Window
ZIP H/W ABOVE SINK
1200 x 1500 Window
1200 x 1500 Window
Panel Eve
POP
4 300
3 300
1 000
3 300
1 000
4 300
Quote CB1751c
51.5 sq m
12 000

Jeanella South Farm 74 Lot 79 Merrondale Lane Goolgowi



Workshop

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1/1 FOUNDATION PLAN AND MEMBER LAYOUT
SCALE: 1 = 100

FOR INTERNAL WALLS USE MULLION SPECIFICATIONS

MAIN FRAME COLUMN LEGEND

C1	C15012
C2	C15024

DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS TO BE VERIFIED ON SITE.

SHEET 1 OF 6
JOB NO. GRIF15712
DATE 3/8/2015
CHECKED TM
DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
FOR 02 6964 9991
PROTEN NARRANDERA (WORK SHOP)
AT
LOT 42 STURT HWY
EUROLEY

SHED SAFE accredited

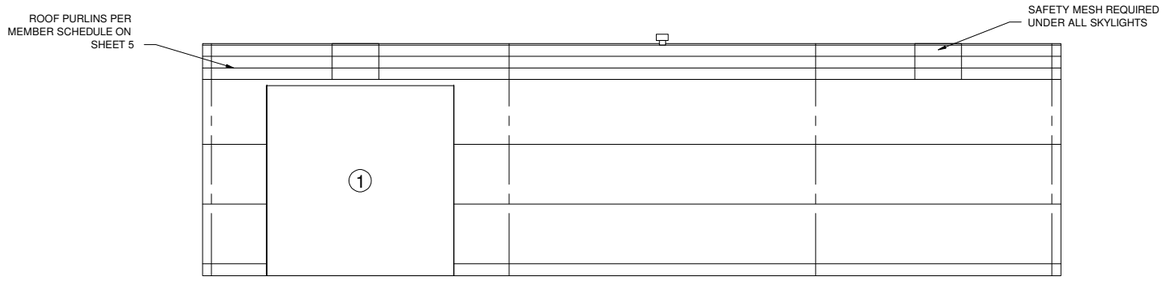
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NORTHERN CONSULTING engineers
Civil & Structural Engineers
50 Punari Street
Currajong, Qld 4812
Fax: 07 4725 5850
Email: design@nceng.com.au
ABN 341 008 173 56

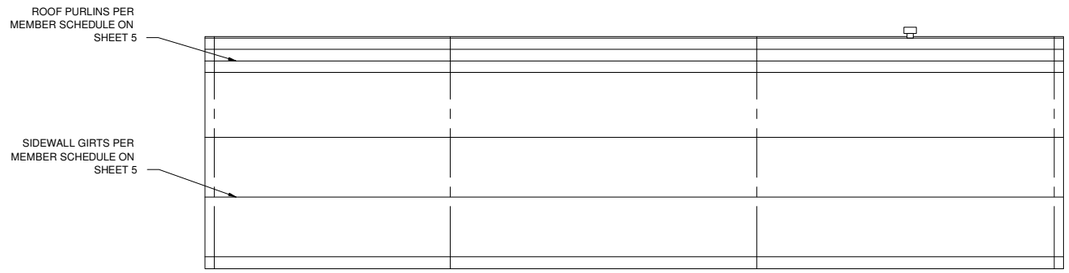
Registered Chartered Professional Engineer — Regn. No. 2558980
Registered Professional Engineer (Civil & Structural) QLD — Regn. No. 9985
Registered Certifying Engineer (Structural) N.T. — Regn. No. 116373ES
Registered Engineer - (Civil) VIC — Regn. No. EC36692
Registered Engineer - (Civil) TAS — Regn. No. CC5648M

Mr Timothy Roy Messer BE MIEAust RPEQ
Registered Professional Engineer 2558980
Signature .....
Date 3/8/2015
Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register

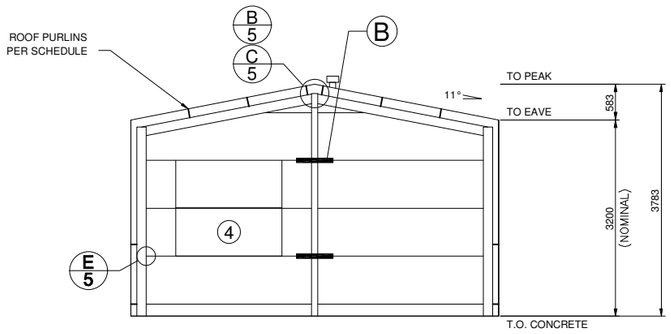
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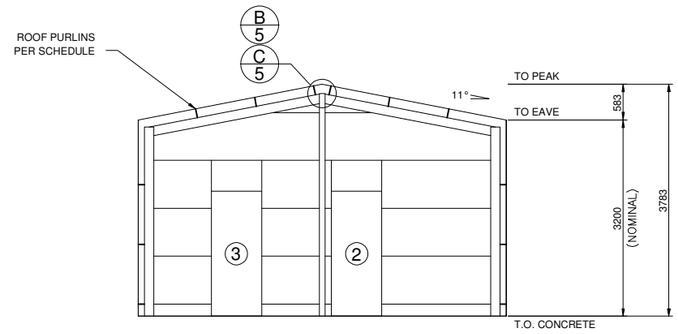
1/2 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 100



2/2 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 100



4/2 ENDWALL INTERIOR ELEVATION
SCALE: 1 = 100



3/2 ENDWALL INTERIOR ELEVATION
SCALE: 1 = 100

Diagonal X Bracing not required in this building.
Cladding Diaphragm Sufficient. Fly Bracing is included in this building to be placed on every second Purlin/Girt.

SHEET 2 OF 6
JOB NO. GRIF15712
DATE 3/8/2015
CHECKED TM
DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR PROTEN NARRANDERA (WORK SHOP)
AT LOT 42 STURT HWY
EUROLEY

SHED SAFE accredited

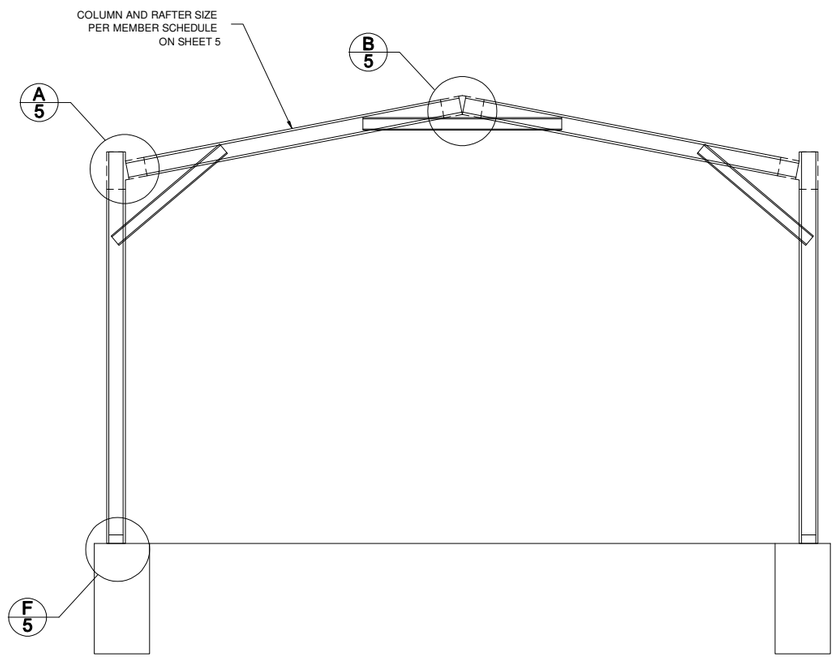
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NORTHERN CONSULTING engineers
Civil & Structural Engineers
50 Punari Street
Currajong, Qld 4812
Fax: 07 4725 5850
Email: design@nceng.com.au
ABN 341 008 173 56

Registered Chartered Professional Engineer — Regn. No. 2558980
Registered Professional Engineer (Civil & Structural) QLD — Regn. No. 9985
Registered Certifying Engineer (Structural) N.T. — Regn. No. 116373ES
Registered Engineer - (Civil) VIC — Regn. No. EC36692
Registered Engineer - (Civil) TAS — Regn. No. CC5648M

Mr Timothy Roy Messer BE MIEAust RPEQ
Registered Professional Engineer 2558980
Signature .....
Date 3/8/2015
Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register

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1/3 INTERNAL FRAME SECTION
SCALE: 1 = 50

Refer to Sheet #4 for concrete specification.

SHEET 3 OF 6

JOB NO. GRIF15712

DATE 3/8/2015

CHECKED TM

DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991

FOR PROTEN NARRANDERA (WORK SHOP)

AT LOT 42 STURT HWY
EUROLEY

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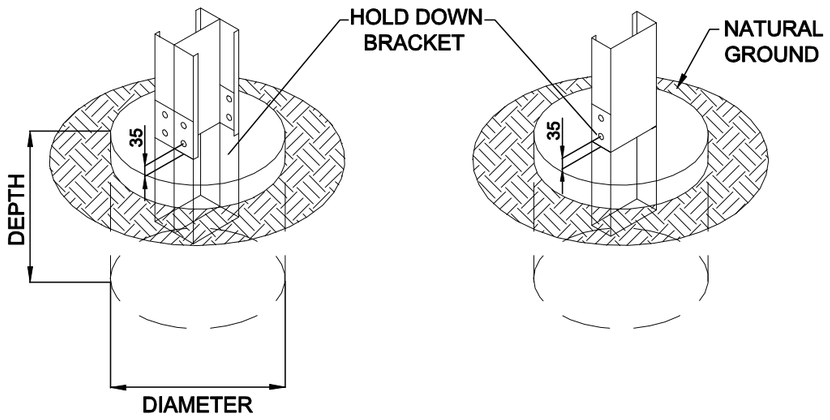
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Civil & Structural Engineers
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Currajong, Qld 4812
Fax: 07 4725 5850
Email: design@nceng.com.au
ABN 341 008 173 56

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Registered Professional Engineer (Civil & Structural) QLD — Regn. No. 9985
Registered Certifying Engineer (Structural) N.T. — Regn. No. 116373ES
Registered Engineer - (Civil) VIC — Regn. No. EC36692
Registered Engineer - (Civil) TAS — Regn. No. CC5848M

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Registered Professional Engineer 2558980
Signature .....
Date 3/8/2015
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Diameter x Depth (mm)

450 x 900

BACK TO BACK COLUMNS

SINGLE COLUMN

Y	BORED FOOTING DETAIL	DWG NO: BOHDB

STRUCTURAL GENERAL NOTES

1. **GOVERNING CODE:** BUILDING CODE OF AUSTRALIA (BCA), LOADING TO AS1170 - ALL SECTIONS. BUILDING SUITABLE FOR DOMESTIC/LIGHT INDUSTRIAL USE UNLESS OTHERWISE SPECIFICALLY NOTED.
2. **DRAWING OWNERSHIP:**
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4. **CONTRACTOR RESPONSIBILITIES:**
CERTIFIER AND CONTRACTOR TO CONFIRM [ON SITE] THAT THE WIND LOADINGS APPLIED TO THIS DESIGN ARE TRUE AND CORRECT FOR THE ADDRESS STATED IN THE TITLE BLOCK.
CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK.
CONTRACTOR MUST NOT MAKE ANY DEVIATION FROM THE PROVIDED PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM ONE THE UNDERSIGNING ENGINEERS. THE ENGINEER / FBHS TAKE NO RESPONSIBILITY FOR CHANGES MADE WITHOUT WRITTEN APPROVAL.
CONTRACTOR IS RESPONSIBLE FOR ENSURING NO PART OF THE STRUCTURE BECOMES OVERSTRESSED DURING CONSTRUCTION.
BUILDING IS NOT STRUCTURALLY ADEQUATE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN IS COMPLETED IN ACCORDANCE WITH THESE DRAWINGS.
THE INDICATED DRAWING SCALES ARE APPROXIMATE. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES.
FOR FUTHER DIRECTIONS ON CONSTRUCTION THE CONTRACTOR SHOULD CONSULT THE APPROPRIATE INSTRUCTION MANUAL.
5. **ENGINEERING:**
THE ENGINEER / FBHS ARE NOT ACTING AS PROJECT MANAGERS FOR THIS DEVELOPMENT, AND WILL NOT BE PRESENT DURING CONSTRUCTION.
THE UNDERSIGNING ENGINEERS HAVE REVIEWED THIS BUILDING FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN PORTIONS OF THE GOVERNING CODE. THE PROJECT MANAGER IS RESPONSIBLE FOR ADDRESSING ANY OTHER CODE REQUIREMENTS APPLICABLE TO THIS DEVELOPMENT.
THESE DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS SUPPLIED BY FBHS. IT IS THE RESPONSIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY FBHS WITH OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, THE LATEST DRAWINGS PROVIDED BY FBHS SHALL GOVERN.
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6. **INSPECTIONS:**
NO SPECIAL INSPECTIONS ARE REQUIRED BY THE GOVERNING CODE ON THIS JOB. ANY OTHER INSPECTIONS REQUESTED BY THE LOCAL BUILDING DEPARTMENT SHALL BE CONDUCTED AT THE OWNER'S EXPENSE.
7. **SOIL REQUIREMENTS:**
SITE CLASSIFICATION TO BE A, S OR M ONLY. SOIL SAFE BEARING CAPACITY VALUE INDICATED ON DRAWING SHEET 4 OCCURS AT 100mm BELOW FINISH GRADE, EXISTING NATURAL GRADE, OR AT FROST DEPTH SPECIFIED BY LOCAL BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. REGARDLESS OF DETAIL Y ON SHEET 4 THE MINIMUM FOUNDATION DEPTH SHOULD BE 100MM INTO NATURAL GROUND OR BELOW FROST DEPTH SPECIFIED BY LOCAL COUNCIL. ROLLED OR COMPACTED FILL MAY BE USED UNDER SLAB, COMPACTED IN 150mm LAYERS TO A MAXIMUM DEPTH OF 900mm.
CONCRETE FOUNDATION EMBEDMENT DEPTHS DO NOT APPLY TO LOCATIONS WHERE ANY UNCOMPACTED FILL OR DISTURBED GROUND EXISTS OR WHERE WALLS OF THE EXCAVATION WILL NOT STAND WITHOUT SUPPLEMENTAL SUPPORT, IN THIS CASE SEEK FURTHER ENGINEERING ADVICE.
8. **CLASS 10a FOOTING DESIGNS:**
THE FOUNDATION DOCUMENTED IS ALSO APPROPRIATE FOR CLASS 10a BUILDING DESIGNS ON 'M-D', 'H', 'H-D' OR 'E' CLASS SOILS, IF TOTAL SLAB AREA IS UNDER 100m² AND THE MAXIMUM SLAB DIMENSION (LENGTH AND WIDTH) IS LESS THAN 12m.
PLEASE BE AWARE THAT THE SLAB DESIGN FOR H & E CLASS SOILS IN THESE INSTANCES ARE DESIGNED TO EXPERIENCE SOME CRACKING. THIS CRACKING IS NOT CONSIDERED A STRUCTURAL FLAW OR DESIGN ISSUE, AND IS SIMPLY COSMETIC IN NATURE. IF THIS IS A CONCERN TO THE CLIENT IT IS ADVISED THEY DISCUSS OTHER OPTIONS WITH THE RELEVANT DISTRIBUTOR PRIOR TO THE POURING OF THE SLAB.
9. **CONCRETE REQUIREMENTS:**
ALL CONCRETE DETAILS AND PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH AS2870 AND AS3600.
CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 20MPa FOR EXPOSURE A1 & B1, 25MPa FOR EXPOSURE A2 & B2 AND 32MPa FOR EXPOSURE C, IN ACCORDANCE WITH SECTION 4, AS3600. CEMENT TO BE TYPE A. MAX AGGREGATE SIZE OF 20mm. SLUMP TO BE 80mm +-15mm. SLABS TO BE CURED FOR 7 DAYS BY WATERING OR COVERING WITH A PLASTIC MEMBRANE, AFTER WHICH CONSTRUCTION CAN BEGIN, DUE CARE GIVEN NOT TO OVER-TIGHTEN HOLD DOWN BOLTS. GIVEN ALLOWABLE SOIL TYPES 1 LAYER OF SL72 REINFORCING MESH IS TO BE INSTALLED ON STANDARD SLABS WITH A MINIMUM 30MM COVER FROM CONCRETE SURFACE. CONCRETE REINFORCING TO CONFORM TO AS 1302, AS1303 & AS 1304. ALL REINFORCING COVER TO BE A MINIMUM OF 30mm.
10. **STRUCTURAL STEEL REQUIREMENTS:**
ALL STRUCTURAL STEEL, INCLUDING SHEETING THOUGH EXCLUDING CONCRETE REINFORCING, SHALL CONFORM TO AS 1397 (GAUGE <= 1mm fy = 550MPa, GAUGE > 1mm < 1.5mm fy = 500MPa, GAUGE >= 1.5mm fy = 450MPa).
NO WELDING IS TO BE PERFORMED ON THIS BUILDING.
ALL STRUCTURAL MEMBERS AND CONNECTIONS DESIGNED TO AS4600. ALL BOLT HOLE DIAMETERS TO STRAMIT GENERAL PUNCHINGS.
11. **DESIGN WIND REQUIREMENT:**
THE FRAME AS A BASIC STRUCTURE IS DESIGNED AS AN "AIR LEAKY BUILDING" IN COMPLIANCE WITH AS 1170.5.3, AS SUCH, SHOULD A WINDOW OR DOOR FAIL, INTEGRITY OF THE BUILDING WILL BE MAINTAINED.
12. **FOOT TRAFFIC:**
FOR ERECTION AND MAINTENANCE PLEASE NOTE THE FOLLOWING DEFINED FOOT TRAFFIC ZONES:
- CORRUGATED: WALK ONLY WITHIN 200MM OF SCREW LINES. FEET SPREAD OVER AT LEAST TWO RIBS.
- MONOCLAD: WALK ONLY IN PANS, OR ON RIBS AT SCREW LINES.

PROJECT DESIGN CRITERIA

ROOF LIVE LOAD:	0.25 kPa
BASIC WIND SPEED:	VR 45 m/s
SITE WIND SPEED:	Vsit,B 41 m/s
WIND REGION:	Reg A
TOPOGRAPH FACTOR, k_t :	1
SHIELDING FACTOR, k_s :	1
MAX GROUND SNOW LOAD:	NA
MAX ROOF SNOW LOAD:	NA
SITE ALTITUDE:	NA
TERRAIN CATEGORY:	TCat 2
SOIL SAFE BEARING CAPACITY:	100 kPa
RETURN PERIOD:	1:500
LIMITING CPI 1:	-0.3
LIMITING CPI 2:	0
IMPORTANCE LEVEL:	2

DETAIL KEYS

- (A) ENDWALL VERTICAL MULLION (SEE DETAIL C/5 FOR TOP CONN. AND F/5 FOR BASE CONN.)
- (B) FLYBRACING PER DETAIL L/5
- (C) X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)
- (D) DOUBLE X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)

DOOR SCHEDULE

DOOR	WIDTH	HEIGHT	OPENING TYPE	HEADER GIRT	OPENING JAMBS
1	3050	3100	3.10H X 3.10 CB "SERIES A #	SINGLE	
2	820	2040	PA DOOR 3 CB SPECIAL	SINGLE	
3	820	2040	PA DOOR 3 CB SPECIAL	SINGLE	
4	1730	790	WINDOW	SINGLE	

NOTES: 1) SEE SHEET 5 FOR DOOR OPENING FRAMING INFORMATION.
2) ALL DOOR SCHEDULE MEASUREMENTS ARE ACTUAL DOOR/WINDOW SIZE NOT OPENING SIZE.

SHEET 4 OF 6

JOB NO. GRIF15712

DATE 3/8/2015

CHECKED TM

DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991

FOR PROTEN NARRANDERA (WORK SHOP)

AT LOT 42 STURT HWY EUROLEY

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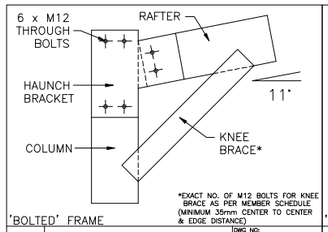
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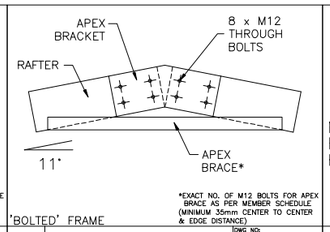
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Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register

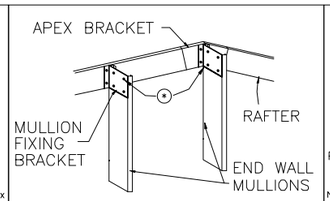
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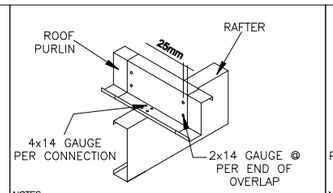
A | HAUNCH CONNECTION | DWG NO: K21BB



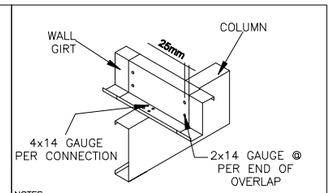
B | APEX CONNECTION | DWG NO: AP21BB



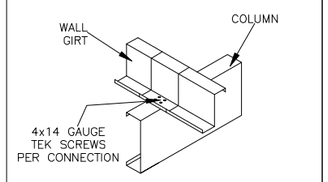
C | MULLION FIXING ANGLE BRACKET | DWG NO MFA4



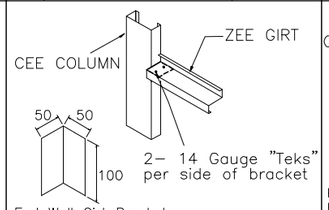
D_P | PURLIN CONNECTION DETAIL | DWG NO PCON5L



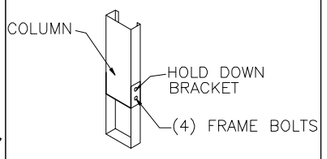
D_G | GIRT CONNECTION DETAIL | DWG NO GCON5L



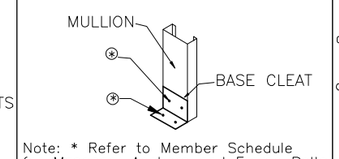
E_G | ENDWALL GIRT CONNECTION DETAIL | DWG NO EGCON5N



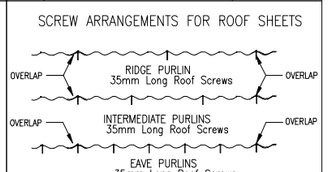
E | END WALL GIRT CONNECTION | DWG NO EG5



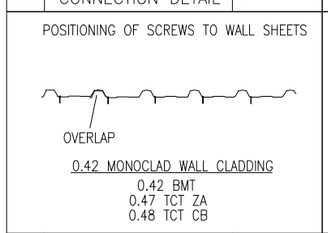
F | BASE CONNECTION | DWG NO HDB7



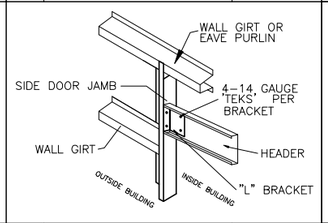
F_E | BASE CONNECTION | DWG NO MBC1



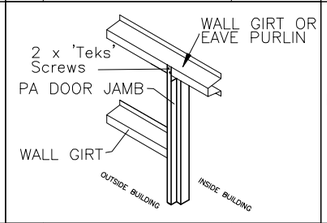
G | ROOF SHEETING PROFILE | DWG NO R0NC3



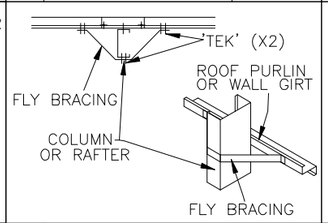
H | WALL SHEET PROFILE | DWG NO W1NC4



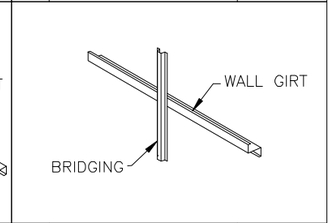
I | SIDE DOOR SUPPORT CONNECTION | DWG NO DFRS



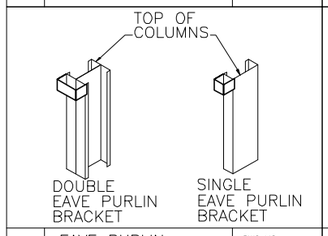
K | PERSONAL ACCESS DOOR | DWG NO PADD1



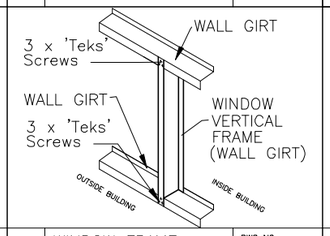
L | FLYBRACING | DWG NO FBRZ



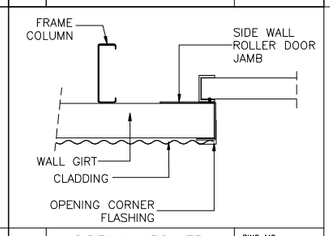
N | BRIDGING DETAIL | DWG NO PGBZ



O | EAVE PURLIN BRACKET | DWG NO EPB2



W | WINDOW FRAME ATTACHMENT DETAIL | DWG NO WADZ



U | SIDEWALL ROLLER DOOR JAMB | DWG NO SRDJ

MEMBER AND MATERIAL SCHEDULE

1	END WALL RAFTER	Single C15012
2	C.S. FRAME RAFTER	Single C15015
3	END FRAME COLUMN (C1)	Single C15012
4	C.S. FRAME COLUMN (C2)	Single C15024
5	MULLION (C1)	Single C15012
6	C.S. FRAME KNEE BRACE	Single C10010 @ 1.35 LONG 3 bolts each end
7	KNEE BRACE HEIGHT UP COLUMN	2.43m
8	KNEE BRACE LENGTH UP RAFTER	0.86m
9	C.S. FRAME APEX BRACE	Single C10010 @ 1.62 LONG 2 bolts each end
10	APEX POSITION FROM RAFTER END	0.83m
11	END ANCHOR BRACKETS (# PER DETS.)	HOLD DOWN BRKTS 150 X 50 X 4-400 DEEP GAL FLAT
12	MAIN SNG ANCHOR BRACKETS (# PER DETS.)	Hold Down Brackets 150 X 50 X 4 Gal Flat
13	MULLION ANCHOR BOLTS (# PER DETS.)	Sleeve Anchor 12.0x75 Z/Y
14	EAVE PURLIN	C10015 (Eave Purlin Bracket 0mm from top of column)
15	TYP. ROOF PURLIN SIZE	Z10010
16	MAIN BLDG. PURLIN SPACING	0.98 m. (3 rows) (Max Allow. 1.00m)
17	ROOF PURLIN BRIDGING	Tophat 64 x 0.75
18	TYP. SIDEWALL GIRT SIZE	Z10010
19	MAIN BLDG. SIDEWALL GIRT SPACING	0.97 m. (3 rows) (Max Allow. 1.00m)
20	SIDEWALL GIRT BRIDGING	Tophat 64 x 0.75
21	TYP. ENDWALL GIRT SIZE	Z10010
22	MAIN BLDG. ENDWALL GIRT SPACING	0.78 m. (4 rows) (Max Allow. 1.00m)
23	MAIN BLDG. ENDWALL GIRT LENGTH	2.85 m. (0.1m Overlap)
24	FRAME SCREW FASTENERS	14-13x22 Hex C/S (SP HD 5/16" Hex Drive)
25	FRAME BOLT FASTENERS	Purlin Assy M12x30 Z/P
26	X-BRACING STRAP AND FASTENERS	None required for this building. Cladding Diaphragm Sufficient.
27	WALL COLOUR	PALE_EUCALYPT
28	ROOF COLOUR	PALE_EUCALYPT
29	ROLLER DOOR COLOUR	PALE_EUCALYPT
30	P.A. DOOR COLOUR	PALE_EUCALYPT
31	WINDOW COLOUR	PALE_EUCALYPT
32	ROOF VENT COLOUR	PALE_EUCALYPT
33	DOWNPIPE COLOUR	PALE_EUCALYPT
34	GUTTER COLOUR	PALE_EUCALYPT
35	CORNER FLASHING COLOUR	PALE_EUCALYPT
36	BARGE FLASHING COLOUR	PALE_EUCALYPT
37	OPENING FLASHING COLOUR	PALE_EUCALYPT
38	OPEN BAY HEADER HEIGHT	0.5

"C.S." = CLEARSPAN "L." = LEFT "R." = RIGHT

PURLIN AND GIRT LENGTHS

BAY	WIDTH	PURLIN LENGTH	GIRT LENGTH
1	5m	5.25 m. (0.25m Lap)	5.25 m. (0.25m Lap)
2	5m	5.45 m. (0.45m Lap)	5.45 m. (0.45m Lap)
3	4m	4.25 m. (0.25m Lap)	4.25 m. (0.25m Lap)

SHEET 5 OF 6

JOB NO. GRIF15712

DATE 3/8/2015

CHECKED TM

DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR
PROTEN NARRANDERA (WORK SHOP)
AT
LOT 42 STURT HWY
EUROLEY

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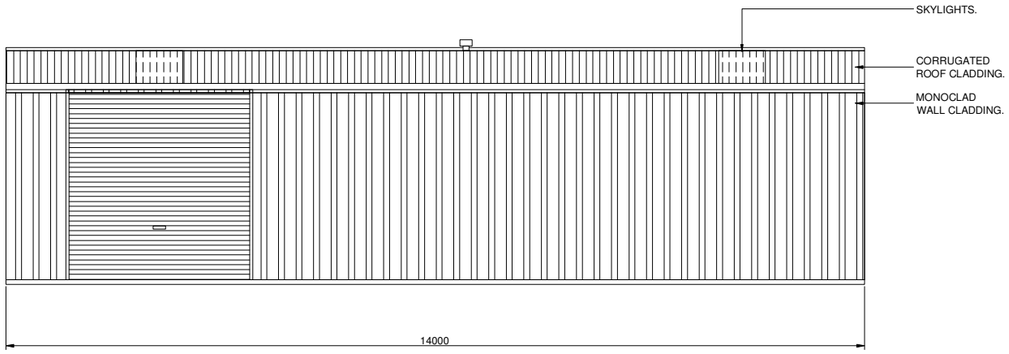
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ABN 341 008 173 56

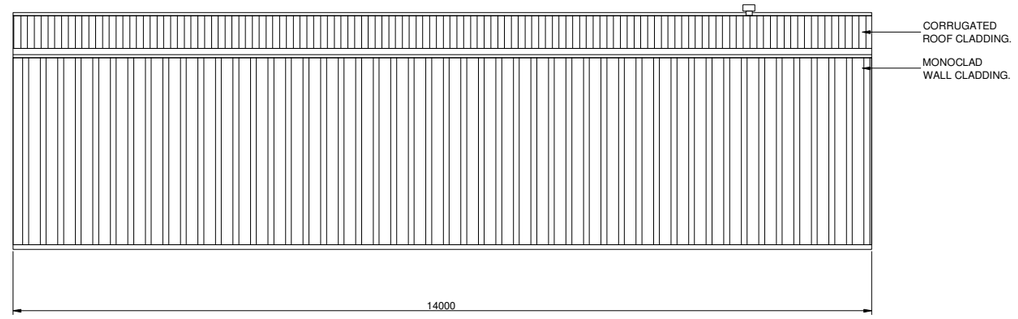
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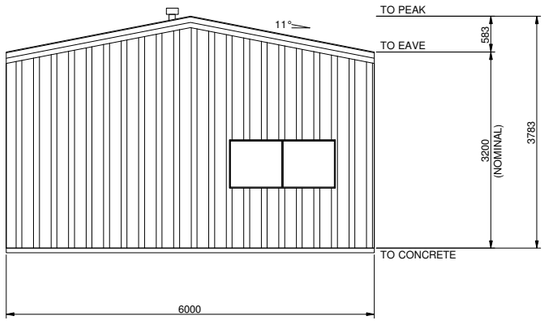
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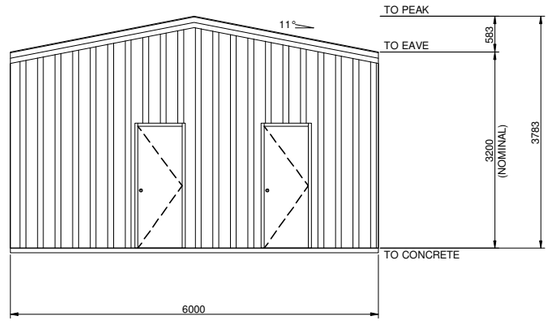
1/6 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 100



2/6 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 100



4/6 ENDWALL EXTERIOR ELEVATION
SCALE: 1 = 100



3/6 ENDWALL EXTERIOR ELEVATION
SCALE: 1 = 100

BUILDING COLOURS

WALL	PALE EUCALYPT
ROOF	PALE EUCALYPT
ROLLER DOOR	PALE EUCALYPT
P.A. DOOR	PALE EUCALYPT
WINDOW	PALE EUCALYPT
ROOF VENT	PALE EUCALYPT
DOWNPIPE	PALE EUCALYPT
GUTTER	PALE EUCALYPT
CORNER FLASHING	PALE EUCALYPT
BARGE FLASHING	PALE EUCALYPT
OPENING FLASHING	PALE EUCALYPT

SHEET 6 OF 6
JOB NO. GRIF15712
DATE 3/8/2015
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DRAWN FDS

STEEL BUILDING BY (CONTACT)
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GUIDE TO THE INSTALLATION OF TEMPORARY BRACING

(REFER TO FDHS INSTALLATION GUIDE MANUAL FOR THE TWO METHODS OF CONSTRUCTION)

NOTES:

BRACING MATERIALS - THE SHED ERECTOR TO SUPPLY SPECIFIC BRACING. SUITABLE RIGID MEMBERS CAPABLE OF TENSION AND COMPRESSION OR OPPOSING CHAINS OR OPPOSING LOAD RATED RATCHET STRAPS TO BE USED. (RIGID BRACING AS SHOWN ON DIAGRAM) ROPE BRACING SUITABLE ONLY FOR SMALLER STRUCTURES IN IDEAL CONDITIONS.

BRACING LOCATION - TEMPORARY BRACING TO BE ERECTED AS CLOSE TO 45 DEGREE ANGLE AND FIXED TO THE TOP OF THE COLUMN OR MULLION TO ACHIEVE THE OPTIMUM EFFECTIVENESS. IF THERE IS NOT ENOUGH SPACE FOR A 45 DEGREE ANGLE, THEN 20 DEGREE ANGLE IS TO BE THE MINIMUM ANGLE ALLOWED (REFER TO DIAGRAM). RIGID TEMPORARY BRACING MEMBER TO BE BOLTED TO HEAVY ANGLE PEGS HAMMERED INTO THE GROUND OR TO A BRACKET, MASONRY ANCHORED TO THE SLAB.

BRACING REMOVAL - TEMPORARY BRACING TO REMAIN IN PLACE UNTIL CLADDING IS FULLY INSTALLED WHERE POSSIBLE. IN NO CASE SHOULD TEMPORARY BRACING BE REMOVED UNTIL ALL PURLINS, GIRTS (AND PERMANENT CROSS BRACING WHERE USED) ARE FIXED.

SITE SAFETY - DUE CONSIDERATION TO BE GIVEN TO SITE SAFETY IN REGARD TO LOCATIONS OF BRACING AND PEGS.

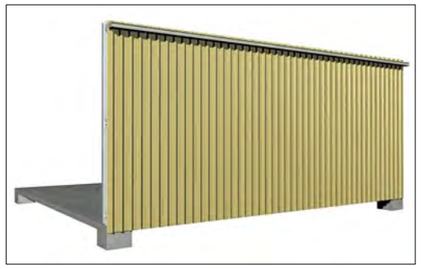
GUIDE APPLICATION - TEMPORARY BRACING AS DESCRIBED IS A MINIMUM REQUIREMENT FOR AN AVERAGE, STANDARD SITE CONDITION. PROVIDE ADDITIONAL BRACING FOR MORE SEVERE AND/OR HIGH EXPOSURE SITE CONDITIONS.
ADDITIONAL BRACING TO BE USED AS AND WHERE NECESSARY TO ENSURE THAT ENTIRE FRAME IS RIGID THROUGHOUT CONSTRUCTION.
RESPONSIBILITY FOR ENSURING STABILITY OF STRUCTURE REMAINS WITH THE BUILDER.

TILT UP METHOD
FOR STRUCTURES UNDER 9M SPAN, LESS THAN 3M HIGH AND LESS THAN 12M LONG

A. ASSEMBLE THE FIRST SIDEWALL FRAME (COMPLETE WITH WALL SHEETING, BRACING AND GUTTER) ON THE GROUND AND LIFT ASSEMBLED SIDEWALL FRAME INTO POSITION. FIX OFF TEMPORARY SIDE BRACING TO EACH END (REFER TO DIAGRAM). FIX BASE CLEATS.
B. ASSEMBLE THE SECOND SIDEWALL FRAME AS PER FIRST SIDEWALL FRAME. LIFT INTO POSITION. FIX OFF TEMPORARY WALL BRACING TO EACH END (REFER TO DIAGRAM) FIX BASE CLEATS.
C. FIX GABLE END RAFTERS TO COLUMNS TO TIE WALLS. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
D. INSTALL REMAINING RAFTERS. AS EACH RAFTER PAIR IS INSTALLED, AT LEAST ONE PURLIN PER 3M OF RAFTER LENGTH IS TO BE INSTALLED TO SECURE RAFTERS.
E. INSTALL REMAINING PURLINS
F. INSTALL KNEE AND APEX BRACES IF AND WHERE APPLICABLE.
G. REPEAT FOR LEANTO'S.

FRAME FIRST METHOD
FOR STRUCTURES OVER 9M SPAN, GREATER THAN 3M HIGH AND GREATER THAN 12M LONG

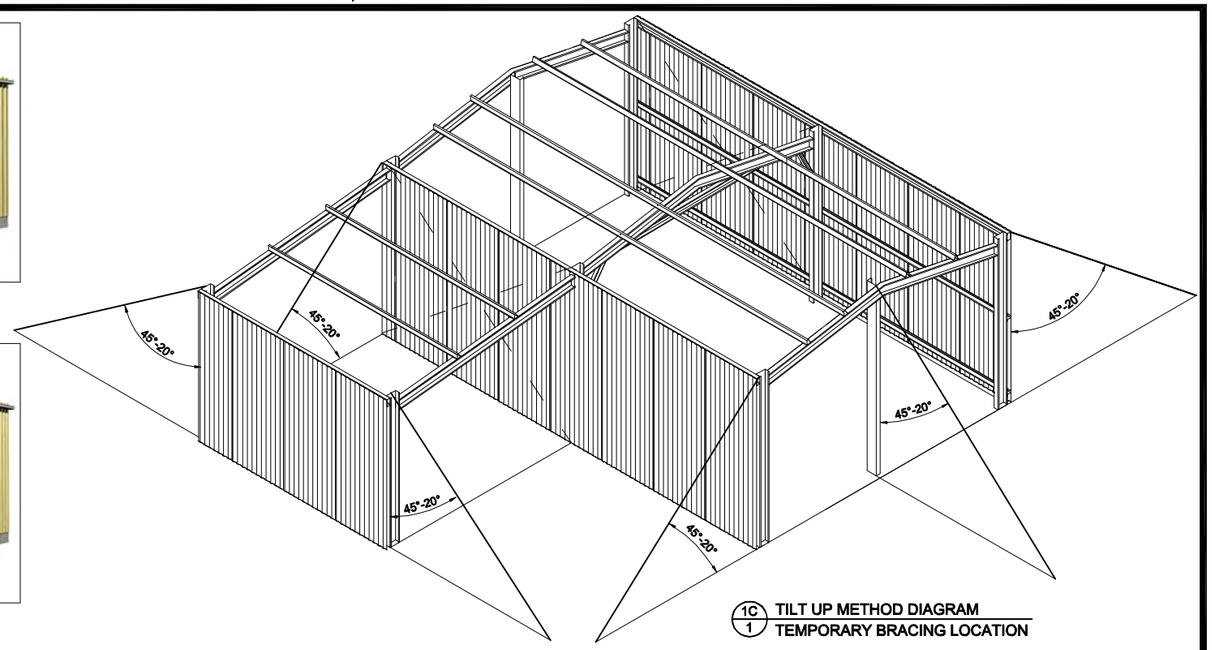
A. ASSEMBLE PORTAL FRAMES ON THE GROUND (WITH KNEE AND APEX BRACES IF AND WHERE APPLICABLE). LIFT THE FIRST PORTAL FRAME ASSEMBLY INTO POSITION. FIX OFF TEMPORARY END BRACING (REFER TO DIAGRAM). FIX BASE CLEATS.
B. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
C. THE SECOND PORTAL FRAME ASSEMBLY TO BE LIFTED INTO POSITION. FIX EAVE PURLINS AND AT LEAST ONE PURLIN PER 3M OF RAFTER TO SECURE FRAME ASSEMBLY. FIX BASE CLEATS. FIX TEMPORARY SIDEWALL BRACING.
D. STAND REMAINING PORTAL FRAME ASSEMBLY AS PER STEP C, FIXING TEMPORARY SIDE WALL BRACING TO EVERY SECOND BAY. BRACE OTHER END PORTAL FRAME AS PER FIRST PORTAL FRAME.
E. INSTALL REMAINING PURLINS AND GIRTS.
F. REPEAT FOR LEANTO'S.



1A/1 FIRST SIDEWALL FRAME
REFER 1C FOR TEMPORARY BRACING LOCATION



1B/1 SECOND SIDEWALL FRAME
REFER 1C FOR TEMPORARY BRACING LOCATION



1C/1 TILT UP METHOD DIAGRAM
TEMPORARY BRACING LOCATION

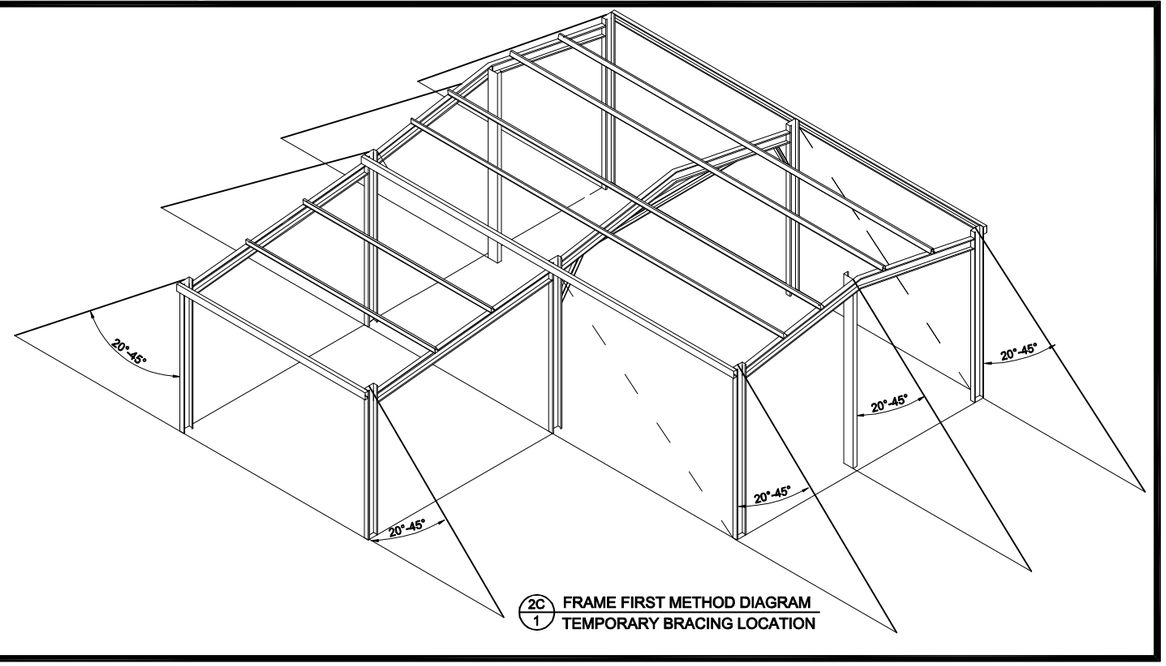
1/1 TILT UP METHOD DIAGRAM
SCALE: NTS



2A/1 FIRST & SECOND PORTAL FRAME ASSEMBLY
REFER 2C FOR TEMPORARY BRACING LOCATION



2B/1 COMPLETE PORTAL FRAME ASSEMBLY
REFER 2C FOR TEMPORARY BRACING LOCATION



2C/1 FRAME FIRST METHOD DIAGRAM
TEMPORARY BRACING LOCATION

2/1 FRAME FIRST METHOD DIAGRAM
SCALE: NTS

JOB NO. GRIF15712
DATE 3/8/2015
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02 6964 9991
FOR
PROTEN NARRANDERA (WORK SHOP)
AT
LOT 42 STURT HWY
EUROLEY

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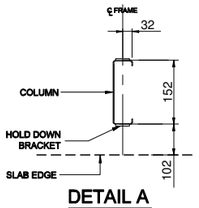
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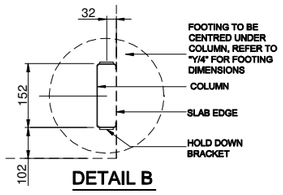
Registered Chartered Professional Engineer — Regn. No. 2558980
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Registered Certifying Engineer (Structural) N.T. — Regn. No. 116373ES
Registered Engineer - (Civil) VIC — Regn. No. EC36892
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Registered Professional Engineer 2558980
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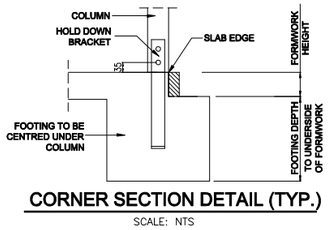
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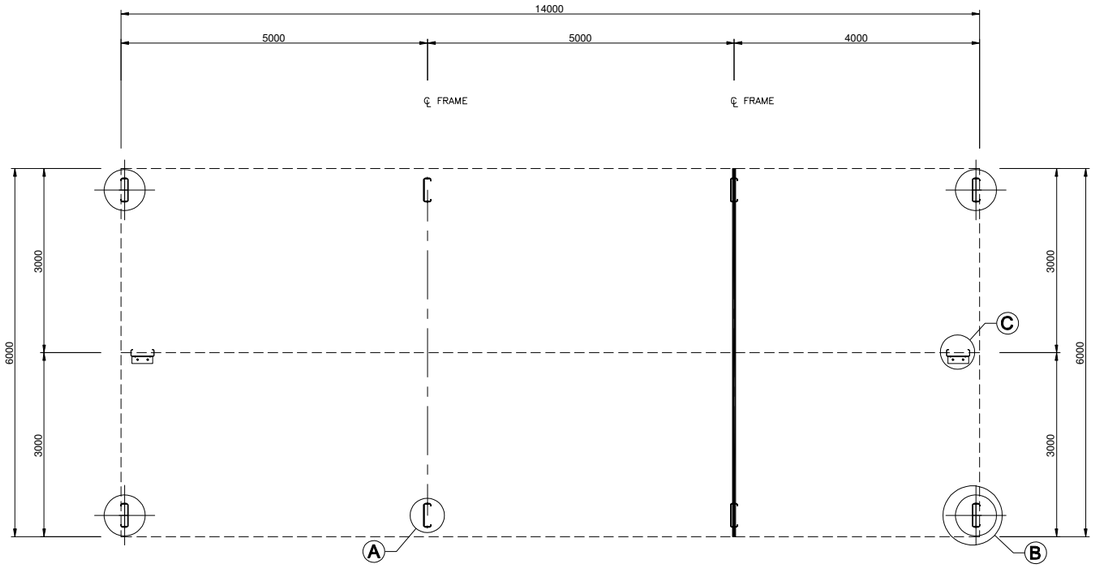
DETAIL A
SCALE: NTS



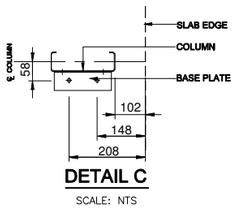
DETAIL B
SCALE: NTS



CORNER SECTION DETAIL (TYP.)
SCALE: NTS



1/1 HOLD DOWN BRACKET LAYOUT
SCALE: 1 = 100



DETAIL C
SCALE: NTS

IF YOU HAVE A ROLLER DOOR IN THE GABLE END OF YOUR SHED, CONTACT YOUR DISTRIBUTOR TO SEE IF MULLION NEEDS TO BE ROTATED FOR USE AS A DOOR JAMB.

NOT PART OF COUNCIL APPLICATION DOCUMENTATION

JOB NO.	DATE	CHECKED	DRAWN
GRIF15712	3/8/2015	TM	FDS

STEEL BUILDING BY
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR
PROTEN NARRANDERA (WORK SHOP)
AT
LOT 42 STURT HWY
EUROLEY

3/8/2015

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BRACKET LAYOUT

COMPLIANCE CERTIFICATE FOR BUILDING DESIGN

Property Description
Street address (include number, street, suburb/locality & postcode)

LOT 42 STURT HWY *	
EUROLEY	**Postcode :** 2700

*** - Certifier to confirm on site that the wind loadings for this design are true and correct for the address stated**

Description of Component/s Certified
Clearly describe the extent of work covered by this certificate.

Steel Portal Frame Structure.
6m span x 14m O/A length x 3.2m eaves height.
Consisting of 3 bays at 5m, 5m, 4m spacings.

Basis of Certification
Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon.

Australian Standards (list) AS/NZS 4600-2005, AS/NZS 1170.0,.1,2,3-2011, AS2870-2011, AS3600-2009	
2015 National Construction Code of Australia	
Region AS1170.2 = Reg A	**Factor for Region =** NA
NCC Importance Level = 2	**NCC Equivalent Wind class =** NA
Annual Probability Exceedance wind = 1:500	**Design Roof Live Load =** 0.25 kPa
Regional 3 s Gust Wind Speed for annual probability of exceedance V_R = 45 **m/s**	
Wind directional multipliers for the 8 cardinal directions Md = 1	
Terrain/Height multiplier (Mz, Cat) = 0.91	**Shielding Multiplier M_s =** 1
Topographic multiplier Mt = 1	**Site Wind Speed $V_{sit,B}$ =** 40 **m/s**
Ext. Pressure Coefficient cpe = −0.65, 1.00	**Int. Pressure Coefficient cpi =** −0.3, 0

Reference Documentation
Clearly identify any relevant documentation, e.g numbered structural engineering plans

Drawing Nos: 'Fair Dinkum Sheds' Structural Design Drawing
To be read in conjunction with Pages 1 to 6
For Job Number: GRIF15712 **DATED :** 3/8/2015
Specifications:
Computations:
Test Reports:
Other Documentation:

Competent Person Details
A competent person for building work, means a person who is assessed by the building certifier for the work as competent to practise in aspect of the design, building or inspection of the building work because of the person's skill and experience in the aspect. The competent person must also be registered or licensed under a law applying in the state to practice the aspect.

A COPY OF A CURRENT CV AND PROFESSIONAL REGISTRATION DETAILS MUST BE PROVIDED WITH THE CERTIFICATE

Name:	**Timothy Roy Messer**		
Company Name (If applicable):	**Northern Consulting Engineers**		
Postal Address:	**50 Punari Street, Currajong 4812**		
Contact Person:	**Timothy Roy Messer**		
Telephone Number:	**07 4725 5550**		
Mobile Number:	**N/A**		
Fax Number:	**07 4725 5850**		
Email Address:	**design@nceng.com.au**		
License or Registration Number:	**2558980**	**Copy of CV Attached:**	**Tick Box**
			Y ☐ or N ☒

Signature of Competent Person
This form may be used by competent persons to certify the design of a material, system, method of building, building element design or other thing.

If the competent person is a licensed company the authorised person of the company is to sign the form.

I certify that the item/s described above, if installed or carried out in accordance with the information conatined in this certificate, including any referenced documentation, will comply with the National Construction Code of Australia/relevant Australian or International Standard.

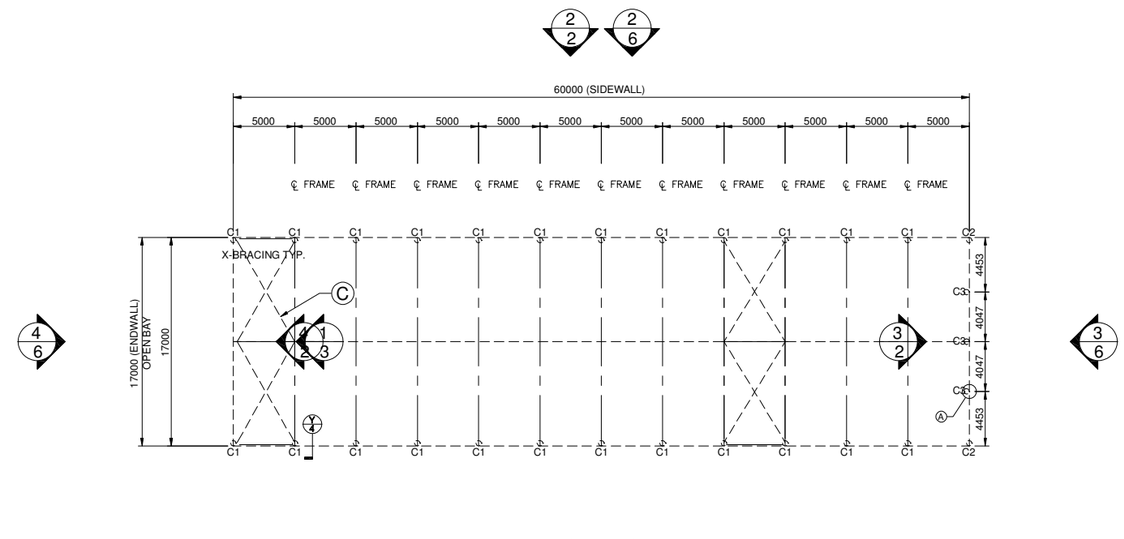
Signature of competent person: T. Messer **Date:** 3/8/2015

LOCAL GOVERNMENT USE ONLY

Date received		**Reference Number/s**		

Rice Hull Shed

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1/1 FOUNDATION PLAN AND MEMBER LAYOUT
SCALE: 1 = 500

DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS TO BE VERIFIED ON SITE.

MAIN FRAME
COLUMN LEGEND

C1	2C25024
C2	C25019
C3	C25024

ROOF STRAP BRACING TO BE CONNECTED TO THE PURLIN CLOSEST TO THE LINE OF THE END WALL MULLION.

SHEET 1 OF 6
JOB NO. GRIF15831
DATE 31/7/2015
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FOR
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AT
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EUROLEY

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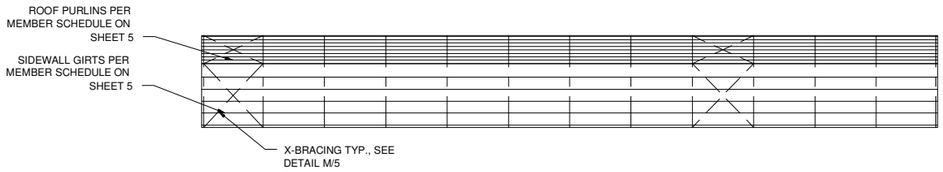
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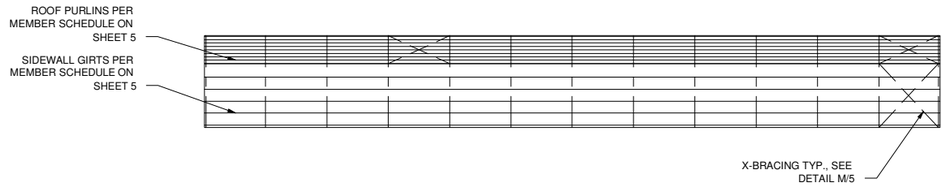
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Registered Engineer - (Civil) TAS — Regn. No. CC5648M

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Signature T. Messer
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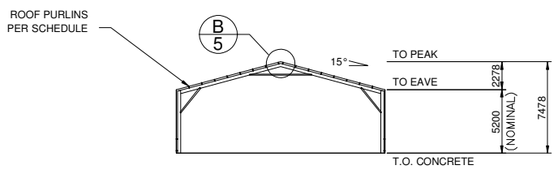
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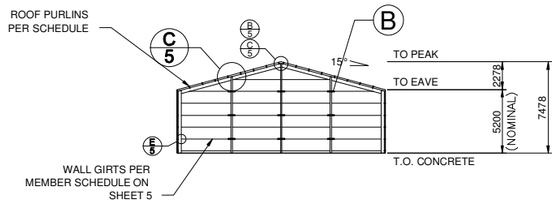
1/2 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 500



2/2 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 500



4/2 ENDWALL INTERIOR ELEVATION
SCALE: 1 = 500



3/2 ENDWALL INTERIOR ELEVATION
SCALE: 1 = 500

X Bracing is required in 3 side bay(s) and 2 roof bay(s) (both sides).
Fly Bracing is included in this building to be placed on every second Purlin/Girt.

SHEET 2 OF 6
JOB NO. GRIF15831
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FOR
PROTEN NARRANDERA
AT
LOT 42 STURT HIGHWAY
EUROLEY

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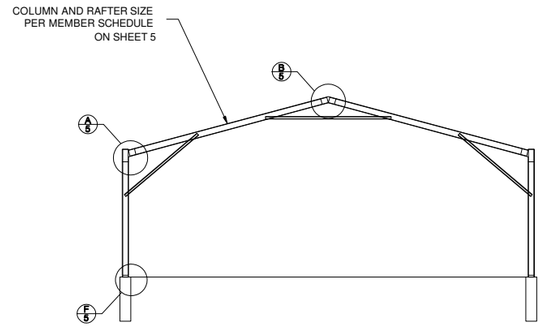
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Mr Timothy Roy Messer BE MIEAust RPEQ
Registered Professional Engineer 2558980
Signature .....
Date 31/7/2015
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1/3 INTERNAL FRAME SECTION
SCALE: 1 = 250

Refer to Sheet #4 for concrete specification.

SHEET 3 OF 6

JOB NO. GRIF15831

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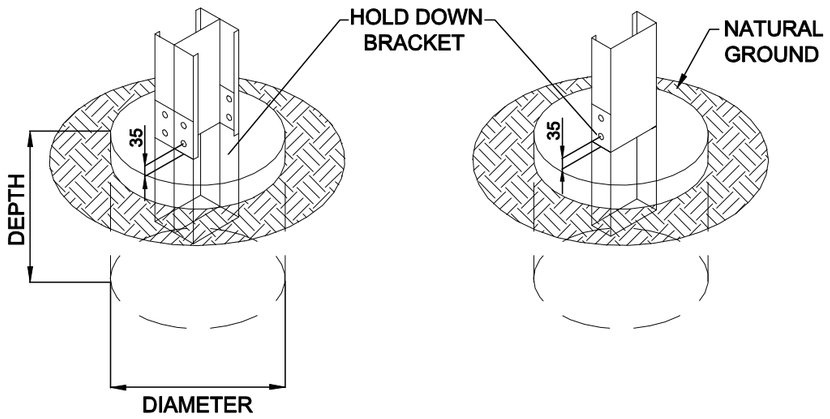
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DEEP FOOTINGS:
All Footings Deeper than 1200mm to Be Reinforced as Follows:
- Diameter or Width <= 450mm, Use Min. 4 x N12 Vertical Bars, R6 Helix / Rings @ 300mm Spacings
- Diameter or Width > 450mm, Use Min. 6 x N12 Vertical Bars, R6 Helix / Rings @ 200mm Spacings



Diameter x Depth (mm)
450 x 1800

BACK TO BACK COLUMNS

SINGLE COLUMN

Y	BORED FOOTING DETAIL	DWG NO: BOHDB

STRUCTURAL GENERAL NOTES

1. **GOVERNING CODE:** BUILDING CODE OF AUSTRALIA (BCA), LOADING TO AS1170 - ALL SECTIONS. BUILDING SUITABLE FOR DOMESTIC/LIGHT INDUSTRIAL USE UNLESS OTHERWISE SPECIFICALLY NOTED.
2. **DRAWING OWNERSHIP:**
   THESE DRAWINGS REMAIN THE PROPERTY OF FBHS (AUST) PTY LIMITED. ENGINEERING SIGNATURE AND CERTIFICATION IS ONLY VALID WHEN BUILDING IS SUPPLIED BY A DISTRIBUTOR OF FBHS. DRAWINGS ARE PROVIDED FOR THE DUAL PURPOSE OF OBTAINING BUILDING PERMITS AND AIDING CONSTRUCTION. ANY OTHER USE OR REPRODUCTION IS PROHIBITED WITHOUT WRITTEN APPROVAL FROM FBHS.
3. **DRAWING SIGNATURE REQUIREMENTS:**
   THESE DRAWINGS ARE NOT VALID UNLESS SIGNED BY THE ENGINEER. THE ENGINEER ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DRAWINGS WITHOUT A SIGNATURE. EACH TITLE BLOCK CONTAINS A WATER MARK UNDER THE CUSTOMERS NAME CONTAINING THE DATE OF PRODUCTION OF THE DRAWINGS; THE DRAWINGS ARE TO BE SUBMITTED TO COUNCIL WITHIN 21 DAYS OF THIS DATE. THIS IS TO ENSURE THAT ONLY CURRENT DRAWINGS ARE IN CIRCULATION.
4. **CONTRACTOR RESPONSIBILITIES:**
   CERTIFIER AND CONTRACTOR TO CONFIRM [ON SITE] THAT THE WIND LOADINGS APPLIED TO THIS DESIGN ARE TRUE AND CORRECT FOR THE ADDRESS STATED IN THE TITLE BLOCK.
   CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK.
   CONTRACTOR MUST NOT MAKE ANY DEVIATION FROM THE PROVIDED PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM ONE THE UNDERSIGNING ENGINEERS. THE ENGINEER / FBHS TAKE NO RESPONSIBILITY FOR CHANGES MADE WITHOUT WRITTEN APPROVAL.
   CONTRACTOR IS RESPONSIBLE FOR ENSURING NO PART OF THE STRUCTURE BECOMES OVERSTRESSED DURING CONSTRUCTION.
   BUILDING IS NOT STRUCTURALLY ADEQUATE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN IS COMPLETED IN ACCORDANCE WITH THESE DRAWINGS.
   THE INDICATED DRAWING SCALES ARE APPROXIMATE. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES.
   FOR FUTHER DIRECTIONS ON CONSTRUCTION THE CONTRACTOR SHOULD CONSULT THE APPROPRIATE INSTRUCTION MANUAL.
5. **ENGINEERING:**
   THE ENGINEER / FBHS ARE NOT ACTING AS PROJECT MANAGERS FOR THIS DEVELOPMENT, AND WILL NOT BE PRESENT DURING CONSTRUCTION.
   THE UNDERSIGNING ENGINEERS HAVE REVIEWED THIS BUILDING FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN PORTIONS OF THE GOVERNING CODE. THE PROJECT MANAGER IS RESPONSIBLE FOR ADDRESSING ANY OTHER CODE REQUIREMENTS APPLICABLE TO THIS DEVELOPMENT.
   THESE DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS SUPPLIED BY FBHS. IT IS THE RESPONSIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY FBHS WITH OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, THE LATEST DRAWINGS PROVIDED BY FBHS SHALL GOVERN.
   NO ALTERATIONS TO THIS STRUCTURE (INCLUDING REMOVAL OF CLADDING) ARE TO BE UNDERTAKEN WITHOUT THE CONSENT OF THE CERTIFYING ENGINEER"
6. **INSPECTIONS:**
   NO SPECIAL INSPECTIONS ARE REQUIRED BY THE GOVERNING CODE ON THIS JOB. ANY OTHER INSPECTIONS REQUESTED BY THE LOCAL BUILDING DEPARTMENT SHALL BE CONDUCTED AT THE OWNER'S EXPENSE.
7. **SOIL REQUIREMENTS:**
   SITE CLASSIFICATION TO BE A, S OR M ONLY. SOIL SAFE BEARING CAPACITY VALUE INDICATED ON DRAWING SHEET 4 OCCURS AT 100mm BELOW FINISH GRADE, EXISTING NATURAL GRADE, OR AT FROST DEPTH SPECIFIED BY LOCAL BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. REGARDLESS OF DETAIL Y ON SHEET 4 THE MINIMUM FOUNDATION DEPTH SHOULD BE 100MM INTO NATURAL GROUND OR BELOW FROST DEPTH SPECIFIED BY LOCAL COUNCIL. ROLLED OR COMPACTED FILL MAY BE USED UNDER SLAB, COMPACTED IN 150mm LAYERS TO A MAXIMUM DEPTH OF 900mm.
   CONCRETE FOUNDATION EMBEDMENT DEPTHS DO NOT APPLY TO LOCATIONS WHERE ANY UNCOMPACTED FILL OR DISTURBED GROUND EXISTS OR WHERE WALLS OF THE EXCAVATION WILL NOT STAND WITHOUT SUPPLEMENTAL SUPPORT, IN THIS CASE SEEK FURTHER ENGINEERING ADVICE.
8. **CLASS 10a FOOTING DESIGNS:**
   THE FOUNDATION DOCUMENTED IS ALSO APPROPRIATE FOR CLASS 10a BUILDING DESIGNS ON 'M-D', 'H', 'H-D' OR 'E' CLASS SOILS, IF TOTAL SLAB AREA IS UNDER 100m² AND THE MAXIMUM SLAB DIMENSION (LENGTH AND WIDTH) IS LESS THAN 12m.
   PLEASE BE AWARE THAT THE SLAB DESIGN FOR H & E CLASS SOILS IN THESE INSTANCES ARE DESIGNED TO EXPERIENCE SOME CRACKING. THIS CRACKING IS NOT CONSIDERED A STRUCTURAL FLAW OR DESIGN ISSUE, AND IS SIMPLY COSMETIC IN NATURE. IF THIS IS A CONCERN TO THE CLIENT IT IS ADVISED THEY DISCUSS OTHER OPTIONS WITH THE RELEVANT DISTRIBUTOR PRIOR TO THE POURING OF THE SLAB.
9. **CONCRETE REQUIREMENTS:**
   ALL CONCRETE DETAILS AND PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH AS2870 AND AS3600.
   CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 20MPa FOR EXPOSURE A1 & B1, 25MPa FOR EXPOSURE A2 & B2 AND 32MPa FOR EXPOSURE C, IN ACCORDANCE WITH SECTION 4, AS3600. CEMENT TO BE TYPE A. MAX AGGREGATE SIZE OF 20mm. SLUMP TO BE 80mm +-15mm. SLABS TO BE CURED FOR 7 DAYS BY WATERING OR COVERING WITH A PLASTIC MEMBRANE, AFTER WHICH CONSTRUCTION CAN BEGIN, DUE CARE GIVEN NOT TO OVER-TIGHTEN HOLD DOWN BOLTS. GIVEN ALLOWABLE SOIL TYPES 1 LAYER OF SL72 REINFORCING MESH IS TO BE INSTALLED ON STANDARD SLABS WITH A MINIMUM 30MM COVER FROM CONCRETE SURFACE. CONCRETE REINFORCING TO CONFORM TO AS 1302, AS1303 & AS 1304.
   ALL REINFORCING COVER TO BE A MINIMUM OF 30mm.
10. **STRUCTURAL STEEL REQUIREMENTS:**
    ALL STRUCTURAL STEEL, INCLUDING SHEETING THOUGH EXCLUDING CONCRETE REINFORCING, SHALL CONFORM TO AS 1397 (GAUGE <= 1mm fy = 550MPa, GAUGE > 1mm < 1.5mm fy = 500MPa, GAUGE >= 1.5mm fy = 450MPa).
    NO WELDING IS TO BE PERFORMED ON THIS BUILDING.
    ALL STRUCTURAL MEMBERS AND CONNECTIONS DESIGNED TO AS4600. ALL BOLT HOLE DIAMETERS TO STRAMIT GENERAL PUNCHINGS.
11. **DESIGN WIND REQUIREMENT:**
    THE FRAME AS A BASIC STRUCTURE IS DESIGNED AS AN "AIR LEAKY BUILDING" IN COMPLIANCE WITH AS 1170.5.3, AS SUCH, SHOULD A WINDOW OR DOOR FAIL, INTEGRITY OF THE BUILDING WILL BE MAINTAINED.
12. **FOOT TRAFFIC:**
    FOR ERECTION AND MAINTENANCE PLEASE NOTE THE FOLLOWING DEFINED FOOT TRAFFIC ZONES:
    - CORRUGATED: WALK ONLY WITHIN 200MM OF SCREW LINES. FEET SPREAD OVER AT LEAST TWO RIBS.
    - MONOCLAD: WALK ONLY IN PANS, OR ON RIBS AT SCREW LINES.

PROJECT DESIGN CRITERIA

ROOF LIVE LOAD:	0.25 kPa
BASIC WIND SPEED:	VR 41 m/s
SITE WIND SPEED:	Vsit,B 38 m/s
WIND REGION:	Reg A
TOPOGRAPH FACTOR, k_t :	1
SHIELDING FACTOR, k_s :	1
MAX GROUND SNOW LOAD:	NA
MAX ROOF SNOW LOAD:	NA
SITE ALTITUDE:	NA
TERRAIN CATEGORY:	TCat 2
SOIL SAFE BEARING CAPACITY:	100 kPa
RETURN PERIOD:	1:100
LIMITING CPI 1:	-0.65
LIMITING CPI 2:	0.7
IMPORTANCE LEVEL:	1

DETAIL KEYS

- (A) ENDWALL VERTICAL MULLION (SEE DETAIL C/5 FOR TOP CONN. AND F/5 FOR BASE CONN.)
- (B) FLYBRACING PER DETAIL L/5
- (C) X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)
- (D) DOUBLE X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)

SHEET 4 OF 6 | JOB NO. GRIF15831 | DATE 31/7/2015 | CHECKED TM | DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR
PROTEN NARRANDERA
AT
LOT 42 STURT HIGHWAY
EUROLEY

SHED SAFE accredited

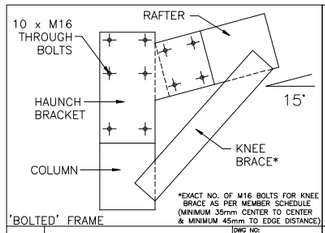
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ABN 341 008 173 56

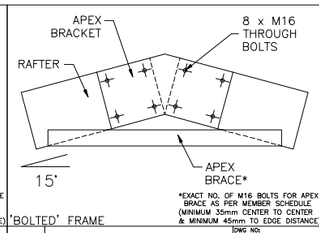
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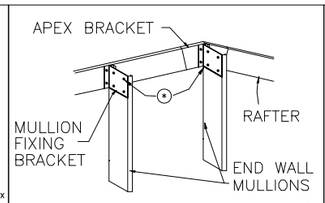
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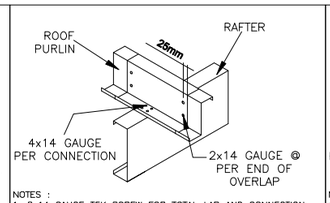
A	HAUNCH CONNECTION	DWG NO: K42BB



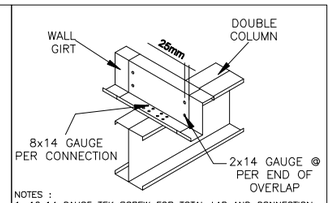
B	APEX CONNECTION	DWG NO: AP42BB



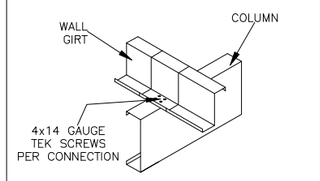
C	MULLION FIXING ANGLE BRACKET	DWG NO MFA13



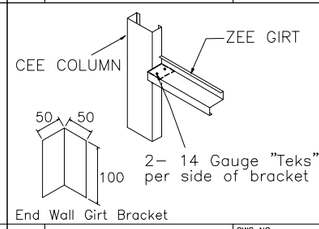
D_P	PURLIN CONNECTION DETAIL	DWG NO PCON8L



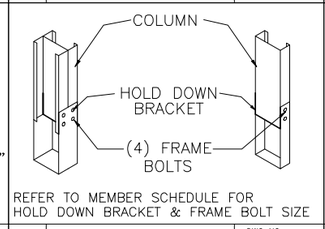
D_G	GIRT CONNECTION DETAIL	DWG NO GCON8LD



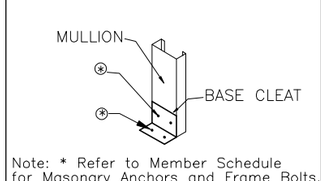
E_G	ENDWALL GIRT CONNECTION DETAIL	DWG NO EGCON8N



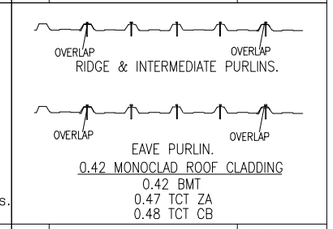
E	END WALL GIRT CONNECTION	DWG NO EG8



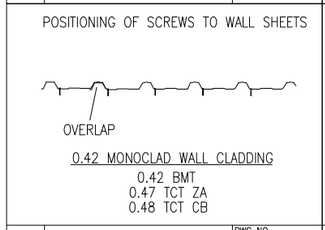
F	BASE CONNECTION	DWG NO HDB30



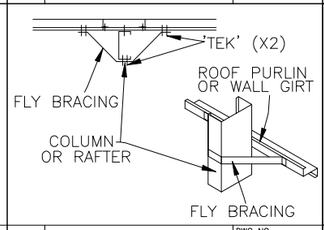
F_E	BASE CONNECTION	DWG NO MBC1



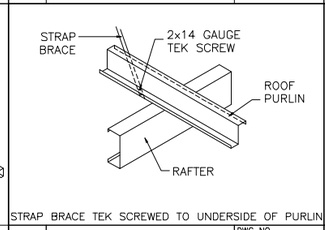
G	ROOF SHEETING PROFILE	DWG NO R1NC4



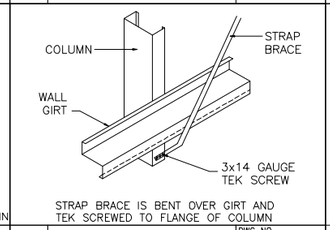
H	WALL SHEET PROFILE	DWG NO W1NC4



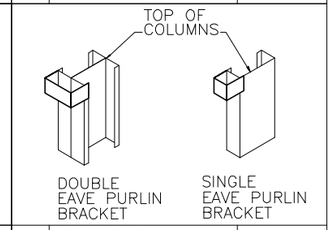
L	FLYBRACING	DWG NO FBRZ



M	STRAP BRACING	DWG NO PZSB



M	STRAP BRACING	DWG NO GZSB



O	EAVE PURLIN BRACKET	DWG NO EPB5

MEMBER AND MATERIAL SCHEDULE

1	END WALL RAFTER	Single C25019
2	C.S. FRAME RAFTER	Single C25024
3	END FRAME COLUMN (C2)	Single C25019
4	C.S. FRAME COLUMN (C1)	Double C25024
5	MULLION (C3)	Single C25024
6	C.S. FRAME KNEE BRACE	Single C20019 @ 4.05 LONG 3 bolts each end
7	KNEE BRACE HEIGHT UP COLUMN	3.28m
8	KNEE BRACE LENGTH UP RAFTER	2.99m
9	C.S. FRAME APEX BRACE	Single C20019 @ 5.10 LONG 2 bolts each end
10	APEX POSITION FROM RAFTER END	2.64m
11	END DBL ANCHOR BRACKETS (# PER DETS.)	HDB Double 250 X 150 X 5 - 400 DEEP - Gal Flat
12	MAIN DBL ANCHOR BRACKETS (# PER DETS.)	HDB Double 250 X 150 X 5 Gal Flat
13	END ANCHOR BRACKETS (# PER DETS.)	HOLD DOWN BRKTS 250 X 75 X 5-400 DEEP GAL FLAT
14	MULLION ANCHOR BOLTS (# PER DETS.)	Sleeve Anchor 16.0x110 Z/Y
15	EAVE PURLIN	C15015 (Eave Purlin Bracket 15mm down from top of column)
16	TYP. ROOF PURLIN SIZE	Z15012
17	MAIN BLDG. PURLIN SPACING	1.08 m. (8 rows) (Max Allow. 1.20m)
18	MAIN BLDG. PURLIN LENGTH	5.5 m. (0.5m Overlap)
19	ROOF PURLIN BRIDGING	Tophat 64 x 0.75
20	TYP. SIDEWALL GIRT SIZE	Z15012
21	MAIN BLDG. SIDEWALL GIRT SPACING	0.97 m. (5 rows) (Max Allow. 1.00m)
22	MAIN BLDG. SIDEWALL GIRT LENGTH	5.5 m. (0.5m Overlap)
23	TYP. ENDWALL GIRT SIZE	Z15012
24	MAIN BLDG. ENDWALL GIRT SPACING	0.97 m. (7 rows) (Max Allow. 1.00m)
25	MAIN BLDG. ENDWALL GIRT LENGTH	4.15 m. (0.1m Overlap)
26	FRAME SCREW FASTENERS	14-13x22 Hex C/S (SP HD 5/16" Hex Drive)
27	FRAME BOLT FASTENERS	8.8 Hex BN+2W M16x40 Z/P
28	X-BRACING STRAP AND FASTENERS	Single Bracing Strap Per Roll Heavy
29	WALL COLOUR	PALE_EUCALYPT
30	ROOF COLOUR	PALE_EUCALYPT
31	DOWNPIPE COLOUR	PALE_EUCALYPT
32	GUTTER COLOUR	PALE_EUCALYPT
33	CORNER FLASHING COLOUR	PALE_EUCALYPT
34	BARGE FLASHING COLOUR	PALE_EUCALYPT
35	OPENING FLASHING COLOUR	PALE_EUCALYPT
36	OPEN BAY HEADER HEIGHT	0.5

"C.S." = CLEARSPAN "L." = LEFT "R." = RIGHT

SHEET 5 OF 6

JOB NO. GRIF15831

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FOR
PROTEN NARRANDERA
AT
LOT 42 STURT HIGHWAY
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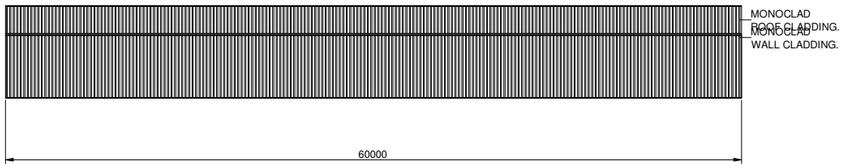
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50 Punari Street
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Email: design@nceng.com.au
ABN 341 008 173 56

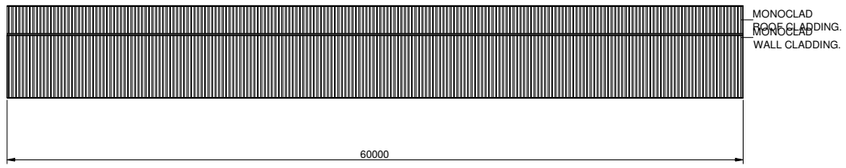
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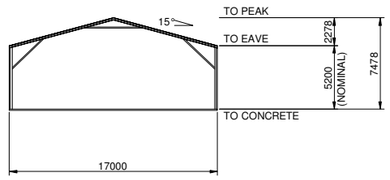
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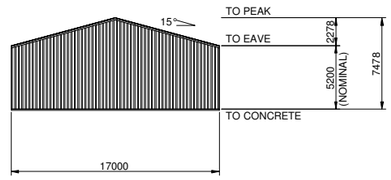
1/6 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 500



2/6 SIDEWALL EXTERIOR ELEVATION
SCALE: 1 = 500



4/6 ENDWALL EXTERIOR ELEVATION
SCALE: 1 = 500



3/6 ENDWALL EXTERIOR ELEVATION
SCALE: 1 = 500

BUILDING COLOURS

WALL	PALE EUCALYPT
ROOF	PALE EUCALYPT
DOWNPIPE	PALE EUCALYPT
GUTTER	PALE EUCALYPT
CORNER FLASHING	PALE EUCALYPT
BARGE FLASHING	PALE EUCALYPT
OPENING FLASHING	PALE EUCALYPT

SHEET 6 OF 6

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GUIDE TO THE INSTALLATION OF TEMPORARY BRACING

(REFER TO FDHS INSTALLATION GUIDE MANUAL FOR THE TWO METHODS OF CONSTRUCTION)

NOTES:

BRACING MATERIALS - THE SHED ERECTOR TO SUPPLY SPECIFIC BRACING. SUITABLE RIGID MEMBERS CAPABLE OF TENSION AND COMPRESSION OR OPPOSING CHAINS OR OPPOSING LOAD RATED RATCHET STRAPS TO BE USED. (RIGID BRACING AS SHOWN ON DIAGRAM) ROPE BRACING SUITABLE ONLY FOR SMALLER STRUCTURES IN IDEAL CONDITIONS.

BRACING LOCATION - TEMPORARY BRACING TO BE ERECTED AS CLOSE TO 45 DEGREE ANGLE AND FIXED TO THE TOP OF THE COLUMN OR MULLION TO ACHIEVE THE OPTIMUM EFFECTIVENESS. IF THERE IS NOT ENOUGH SPACE FOR A 45 DEGREE ANGLE, THEN 20 DEGREE ANGLE IS TO BE THE MINIMUM ANGLE ALLOWED (REFER TO DIAGRAM). RIGID TEMPORARY BRACING MEMBER TO BE BOLTED TO HEAVY ANGLE PEGS HAMMERED INTO THE GROUND OR TO A BRACKET, MASONRY ANCHORED TO THE SLAB.

BRACING REMOVAL - TEMPORARY BRACING TO REMAIN IN PLACE UNTIL CLADDING IS FULLY INSTALLED WHERE POSSIBLE. IN NO CASE SHOULD TEMPORARY BRACING BE REMOVED UNTIL ALL PURLINS, GIRTS (AND PERMANENT CROSS BRACING WHERE USED) ARE FIXED.

SITE SAFETY - DUE CONSIDERATION TO BE GIVEN TO SITE SAFETY IN REGARD TO LOCATIONS OF BRACING AND PEGS.

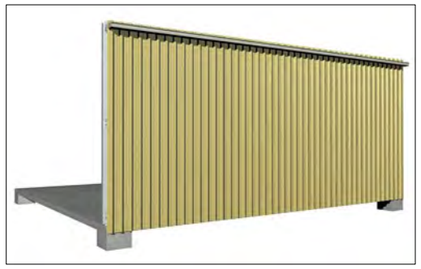
GUIDE APPLICATION - TEMPORARY BRACING AS DESCRIBED IS A MINIMUM REQUIREMENT FOR AN AVERAGE, STANDARD SITE CONDITION. PROVIDE ADDITIONAL BRACING FOR MORE SEVERE AND/OR HIGH EXPOSURE SITE CONDITIONS.
ADDITIONAL BRACING TO BE USED AS AND WHERE NECESSARY TO ENSURE THAT ENTIRE FRAME IS RIGID THROUGHOUT CONSTRUCTION.
RESPONSIBILITY FOR ENSURING STABILITY OF STRUCTURE REMAINS WITH THE BUILDER.

TILT UP METHOD
FOR STRUCTURES UNDER 9M SPAN, LESS THAN 3M HIGH AND LESS THAN 12M LONG

A. ASSEMBLE THE FIRST SIDEWALL FRAME (COMPLETE WITH WALL SHEETING, BRACING AND GUTTER) ON THE GROUND AND LIFT ASSEMBLED SIDEWALL FRAME INTO POSITION. FIX OFF TEMPORARY SIDE BRACING TO EACH END (REFER TO DIAGRAM). FIX BASE CLEATS.
B. ASSEMBLE THE SECOND SIDEWALL FRAME AS PER FIRST SIDEWALL FRAME. LIFT INTO POSITION. FIX OFF TEMPORARY WALL BRACING TO EACH END (REFER TO DIAGRAM) FIX BASE CLEATS.
C. FIX GABLE END RAFTERS TO COLUMNS TO TIE WALLS. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
D. INSTALL REMAINING RAFTERS. AS EACH RAFTER PAIR IS INSTALLED, AT LEAST ONE PURLIN PER 3M OF RAFTER LENGTH IS TO BE INSTALLED TO SECURE RAFTERS.
E. INSTALL REMAINING PURLINS
F. INSTALL KNEE AND APEX BRACES IF AND WHERE APPLICABLE.
G. REPEAT FOR LEANTO'S.

FRAME FIRST METHOD
FOR STRUCTURES OVER 9M SPAN, GREATER THAN 3M HIGH AND GREATER THAN 12M LONG

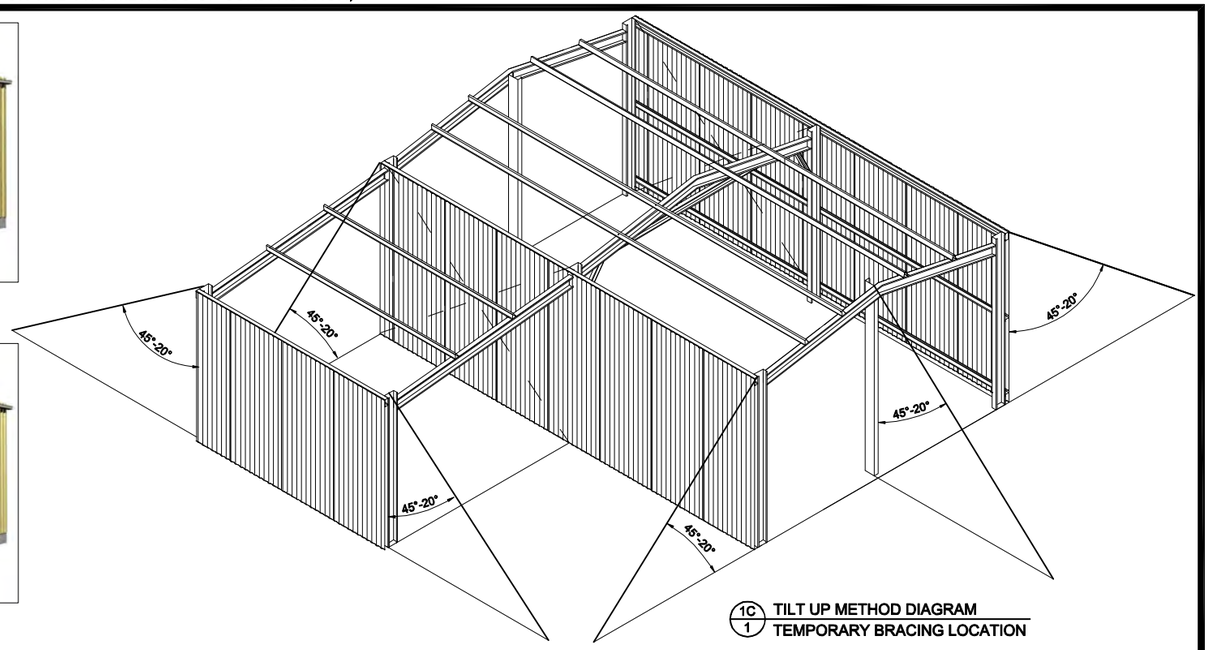
A. ASSEMBLE PORTAL FRAMES ON THE GROUND (WITH KNEE AND APEX BRACES IF AND WHERE APPLICABLE). LIFT THE FIRST PORTAL FRAME ASSEMBLY INTO POSITION. FIX OFF TEMPORARY END BRACING (REFER TO DIAGRAM). FIX BASE CLEATS.
B. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
C. THE SECOND PORTAL FRAME ASSEMBLY TO BE LIFTED INTO POSITION. FIX EAVE PURLINS AND AT LEAST ONE PURLIN PER 3M OF RAFTER TO SECURE FRAME ASSEMBLY. FIX BASE CLEATS. FIX TEMPORARY SIDEWALL BRACING.
D. STAND REMAINING PORTAL FRAME ASSEMBLY AS PER STEP C, FIXING TEMPORARY SIDE WALL BRACING TO EVERY SECOND BAY. BRACE OTHER END PORTAL FRAME AS PER FIRST PORTAL FRAME.
E. INSTALL REMAINING PURLINS AND GIRTS.
F. REPEAT FOR LEANTO'S.



1A/1 FIRST SIDEWALL FRAME
REFER 1C FOR TEMPORARY BRACING LOCATION



1B/1 SECOND SIDEWALL FRAME
REFER 1C FOR TEMPORARY BRACING LOCATION



1C/1 TILT UP METHOD DIAGRAM
TEMPORARY BRACING LOCATION

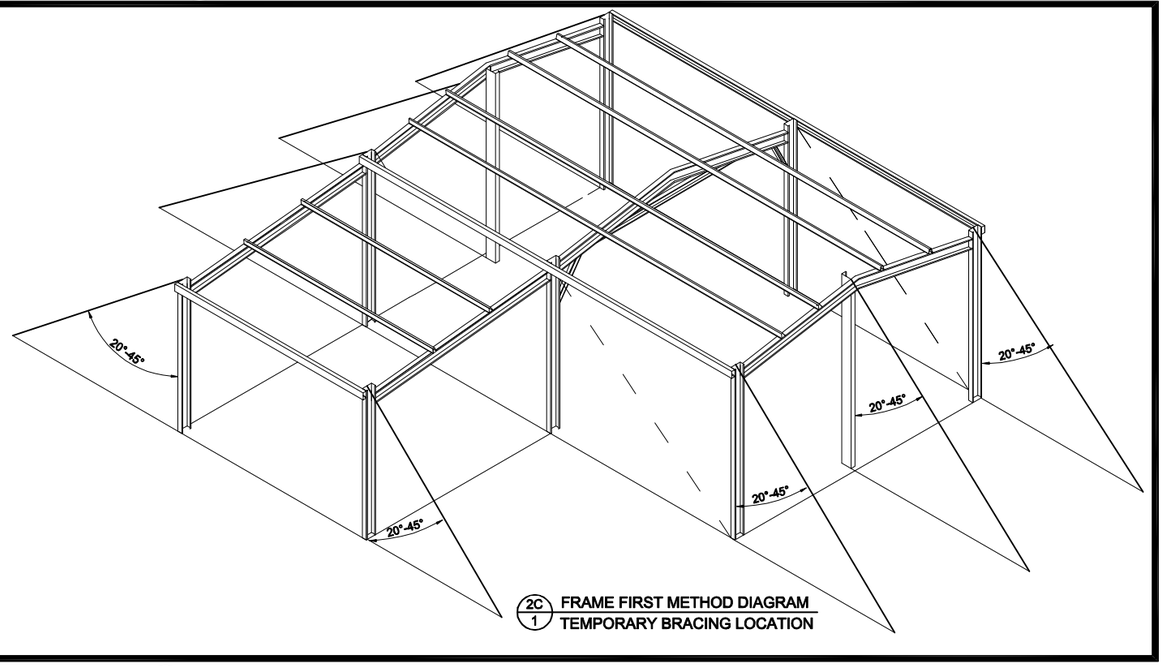
1/1 TILT UP METHOD DIAGRAM
SCALE: NTS



2A/1 FIRST & SECOND PORTAL FRAME ASSEMBLY
REFER 2C FOR TEMPORARY BRACING LOCATION



2B/1 COMPLETE PORTAL FRAME ASSEMBLY
REFER 2C FOR TEMPORARY BRACING LOCATION



2C/1 FRAME FIRST METHOD DIAGRAM
TEMPORARY BRACING LOCATION

2/1 FRAME FIRST METHOD DIAGRAM
SCALE: NTS

JOB NO. GRIF15831
DATE 31/7/2015
CHECKED TM
DRAWN FDS

STEEL BUILDING BY (CONTACT)
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR
PROTEN NARRANDERA
AT
LOT 42 STURT HIGHWAY
EUROLEY

SHED SAFE accredited™

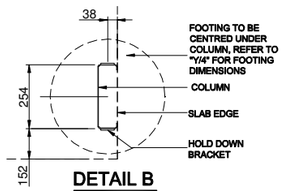
fairdinkum SHEDS

NORTHERN CONSULTING engineers
Civil & Structural Engineers
50 Punari Street
Currajong, Qld 4812
Fax: 07 4725 5850
Email: design@nceng.com.au
ABN 341 008 173 56

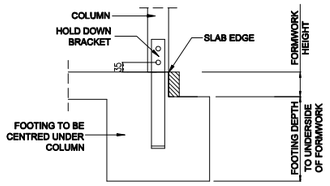
Registered Chartered Professional Engineer — Regn. No. 2558980
Registered Professional Engineer (Civil & Structural) QLD — Regn. No. 9985
Registered Certifying Engineer (Structural) N.T. — Regn. No. 116373ES
Registered Engineer - (Civil) VIC — Regn. No. EC36892
Registered Engineer - (Civil) TAS — Regn. No. CC5648M

Mr Timothy Roy Messer BE MIEAust RPEQ
Registered Professional Engineer 2558980
Signature .....
Date 31/7/2015
Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register

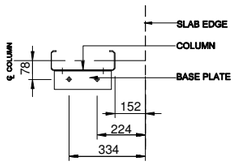
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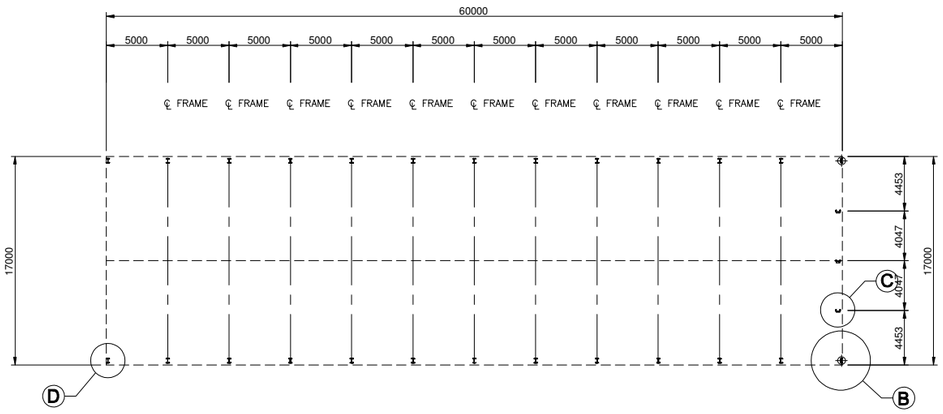
DETAIL B
SCALE: NTS



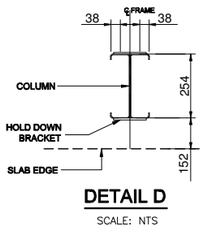
CORNER SECTION DETAIL (TYP.)
SCALE: NTS



DETAIL C
SCALE: NTS



1 / 1 HOLD DOWN BRACKET LAYOUT
SCALE: 1 = 500



DETAIL D
SCALE: NTS

IF YOU HAVE A ROLLER DOOR IN THE GABLE END OF YOUR SHED, CONTACT YOUR DISTRIBUTOR TO SEE IF MULLION NEEDS TO BE ROTATED FOR USE AS A DOOR JAMB.

NOT PART OF COUNCIL APPLICATION DOCUMENTATION

JOB NO.	DATE	CHECKED	DRAWN
GRIF15831	31/7/2015	TM	FDS

STEEL BUILDING BY
GRIFFITH SHEDS AND GARAGES
02 6964 9991
FOR
PROTEN NARRANDERA
AT
LOT 42 STURT HIGHWAY
EUROLEY

31/7/2015

SHED SAFE accredited

fairdinkum SHEDS

BRACKET LAYOUT

COMPLIANCE CERTIFICATE FOR BUILDING DESIGN

Property Description
Street address (include number, street, suburb/locality & postcode)

LOT 42 STURT HIGHWAY *
EUROLEY **Postcode :** 2700

*** - Certifier to confirm on site that the wind loadings for this design are true and correct for the address stated**

Description of Component/s Certified
Clearly describe the extent of work covered by this certificate.

Steel Portal Frame Structure.
17m span x 60m O/A length x 5.2m eaves height.
Consisting of 12 bays at 5m spacing.

Basis of Certification
Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon.

Australian Standards (list) AS/NZS 4600-2005, AS/NZS 1170.0,.1,2,3-2011, AS2870-2011, AS3600-2009	
2015 National Construction Code of Australia	
Region AS1170.2 = Reg A	**Factor for Region =** NA
NCC Importance Level = 1	**NCC Equivalent Wind class =** NA
Annual Probability Exceedance wind = 1:100	**Design Roof Live Load =** 0.25 kPa
Regional 3 s Gust Wind Speed for annual probability of exceedance V_R = 41 **m/s**	
Wind directional multipliers for the 8 cardinal directions Md = 1	
Terrain/Height multiplier (Mz, Cat) = 0.934	**Shielding Multiplier M_s =** 1
Topographic multiplier Mt = 1	**Site Wind Speed $V_{sit,B}$ =** 38 **m/s**
Ext. Pressure Coefficient cpe = −1.35, 1.35	**Int. Pressure Coefficient cpi =** −0.65, 0.7

Reference Documentation
Clearly identify any relevant documentation, e.g numbered structural engineering plans

Drawing Nos: 'Fair Dinkum Sheds' Structural Design Drawing
To be read in conjunction with Pages 1 to 6
For Job Number: GRIF15831 **DATED :** 31/7/2015
Specifications:
Computations:
Test Reports:
Other Documentation:

Competent Person Details
A competent person for building work, means a person who is assessed by the building certifier for the work as competent to practise in aspect of the design, building or inspection of the building work because of the person's skill and experience in the aspect. The competent person must also be registered or licensed under a law applying in the state to practice the aspect.

A COPY OF A CURRENT CV AND PROFESSIONAL REGISTRATION DETAILS MUST BE PROVIDED WITH THE CERTIFICATE

Name:	**Timothy Roy Messer**
Company Name (If applicable):	**Northern Consulting Engineers**
Postal Address:	**50 Punari Street, Currajong 4812**
Contact Person:	**Timothy Roy Messer**
Telephone Number:	**07 4725 5550**
Mobile Number:	**N/A**
Fax Number:	**07 4725 5850**
Email Address:	**design@nceng.com.au**
License or Registration Number:	**2558980** **Copy of CV Attached:** **Tick Box**

Y ☐ or N ☒

Signature of Competent Person
This form may be used by competent persons to certify the design of a material, system, method of building, building element design or other thing.

If the competent person is a licensed company the authorised person of the company is to sign the form.

I certify that the item/s described above, if installed or carried out in accordance with the information conatined in this certificate, including any referenced documentation, will comply with the National Construction Code of Australia/relevant Australian or International Standard.

Signature of competent person: T. Messer **Date:** 31/7/2015

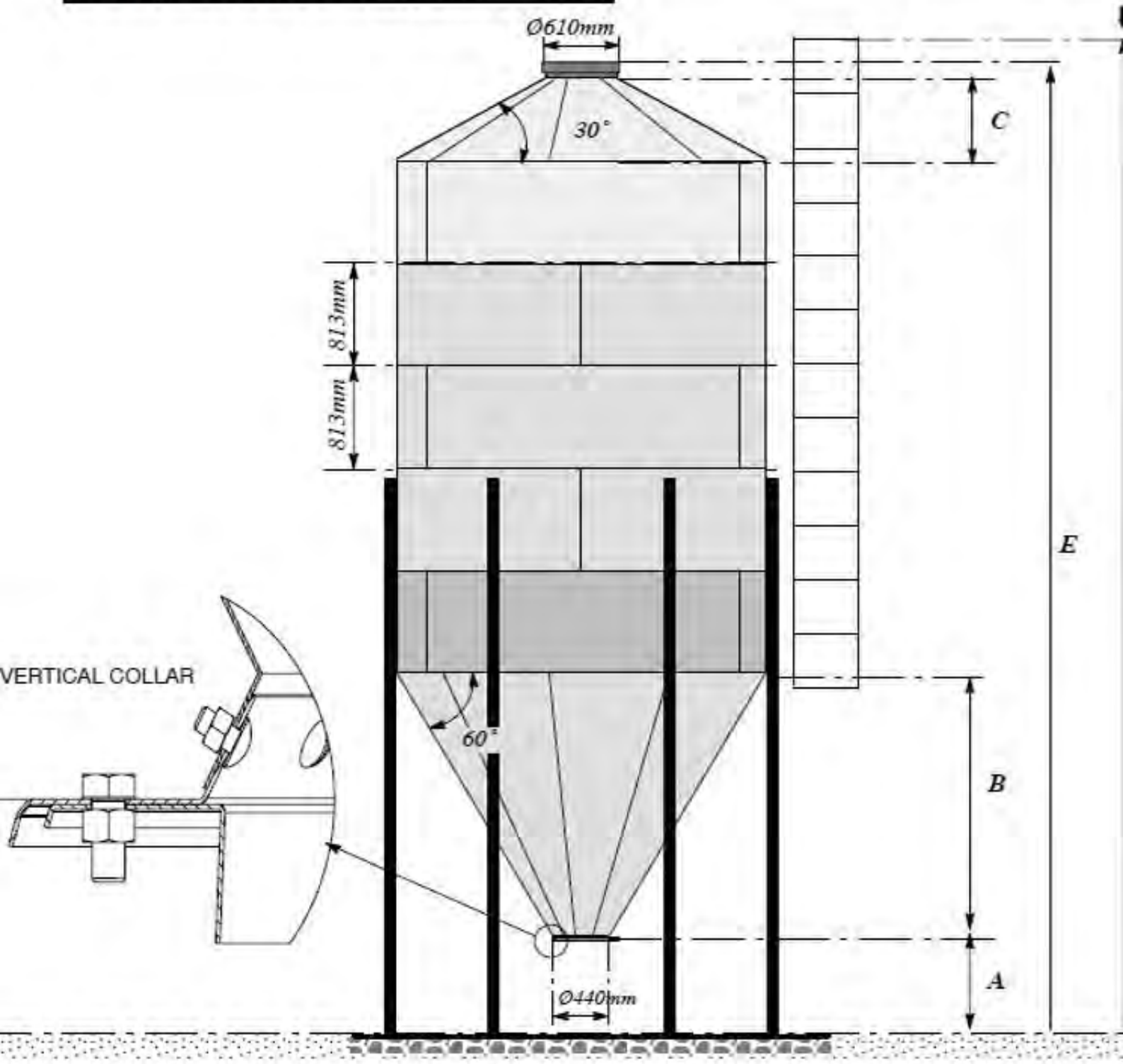
LOCAL GOVERNMENT USE ONLY

Date received		**Reference Number/s**		

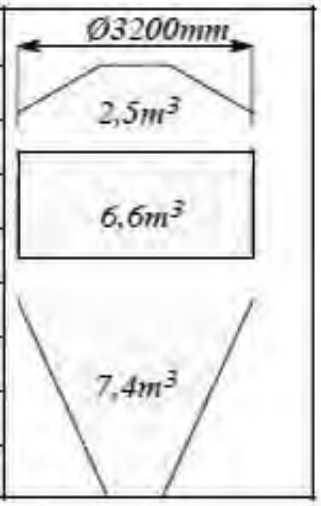
Feed Silos

BIN DIAMETER 2.75m/3.2m

ANCHORING 3mm IN



TYPE	1056
*Weight Kg.**	*1358*
A	*800*
B	*2452*
C	*772*
D	*8960*
E	*9047*
Contents - m³	*49,8*
Contents - M.ton	*32,4*

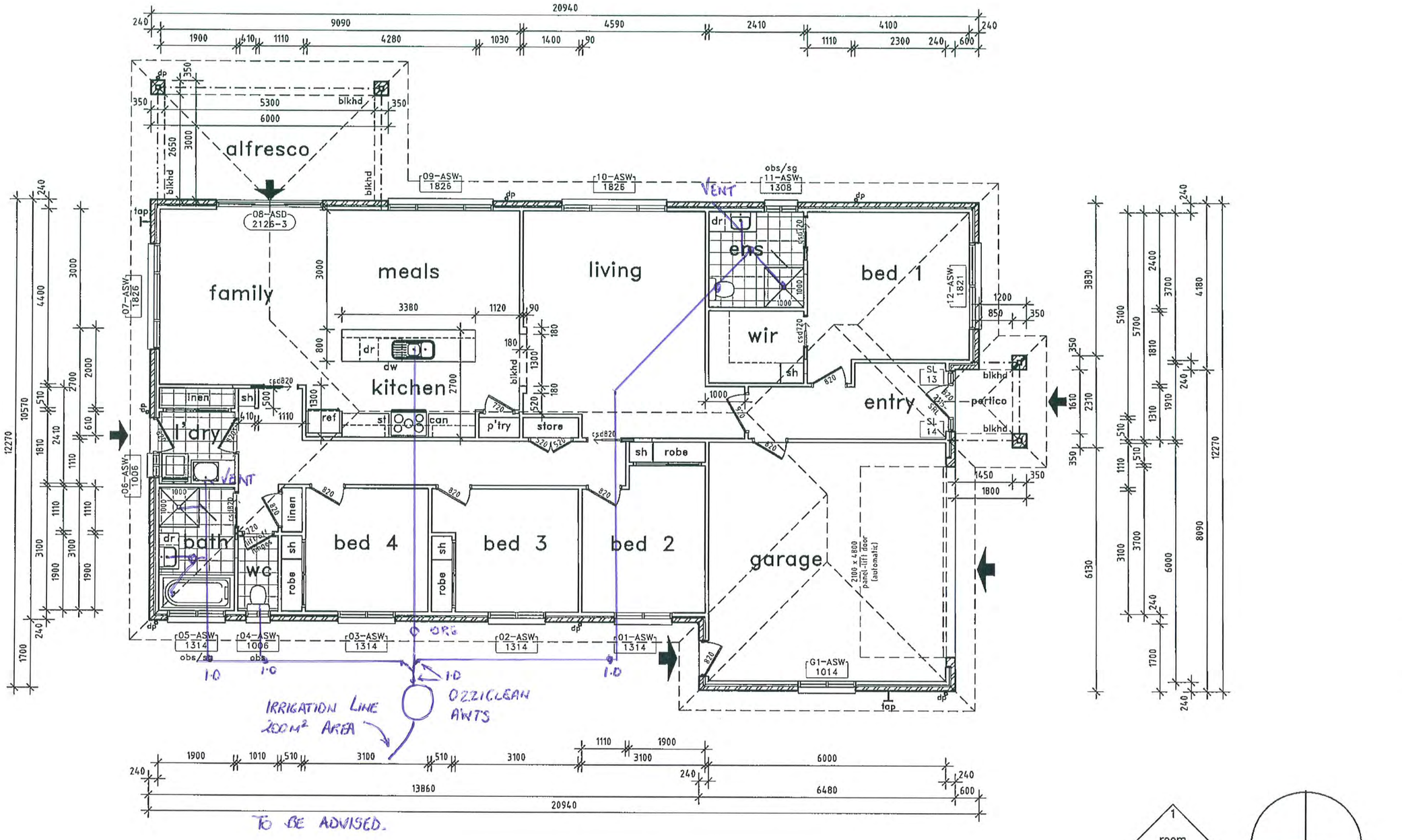


**Max. weight (incl. ladders & safety cage).*

Thickness of Rings -

Ring 1 - 1.5mm
Ring 2 - 1.5mm
Ring 3 - 1.25mm
Ring 4 - 1 mm
Ring 5 - 1 mm
Ring 6 - 1 mm
Bottom Cone Section 1.5mm
Top Cone Section 1.5mm

House Design



room orientation

north

Working Drawing

Project/Client

Proposed dwellings for Proten Holdings Pty Ltd Lot 42 Sturt Highway Euroley, NSW 2700 DP pending

ground floor plan (dwelling 1 & 2)

floor area: 189.1m²	external walls: 240mm
garage area: 39.4m²	internal walls: 90mm
portico area: 4.0m²	glazing to AS1288
alfresco area: 18.0m²	

Scale	1:100
Drawing Start	20.10.14
Signed off	
Project Number	P2260
Drawing Number	2 of 10
Plot date	16.07.15

Inclusion: S2/Shelby187/Standard/modified

revision : P03_W03

DAVIS SANDERS HOMES

Davis Sanders Homes Pty Limited.
ABN 85-057-370-822
Licence No's NSW 41757C & Victoria DB-U25641

21 Bennu Circuit, Albury NSW 2640
PO Box 7285, Albury East NSW 2640
Telephone 02 6057 4777 Fax 02 6057 4778
www.davissandershomes.com.au

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Aerated Wastewater Treatment Systems

Owner's Manual

OzziKleen
Sewerage Systems

Ozzi Kleen

RP10
RP10A

Please contact your Ozzi Kleen Service Provider with any queries:

Manufactured by: Suncoast Waste Water Management
59 Industrial Avenue, Kunda Park, QLD, 4556
Head Office: 07 5459 4900
Fax: 07 5456 4677 Email: info@ozzikleen.com
www.ozzikleen.com

SPECIFICATIONS

Parameter	Raw Wastewater Characteristics
Wastewater treatment capacity	10 persons EP at 200 l/person/day
Maximum hydraulic load	2,000 l/day
Biological Oxygen Demand (BOD_5)	350 mg/litre or 70 g/day/person
Total Suspended Solids (TSS)	350 mg/litre or 70 g/day/person
Fats, Oils and Grease (FOG)	75 mg/litre. For restaurant applications, a grease trap must be fitted upstream of the treatment plant to remove grease and oils.
pH	6<pH<10
Wastewater temperature range	10°C to 38°C

Treatment Plant Construction:

Tank and components	Polyethylene (MDPE)
All Pipe work	PVC

Electrical Equipment:

Air Blower	LP80HN
Effluent Pump	Submersible
Controls	Electronic (OK1 Control Board)

Alarm System:

Alarm System	24VDC Audio/Visual
Alarm signal	Indicator lights for High Water Power & Blower

Aeration Tank:

Operating Volume	4.1m^3
Aeration tank volume	5.3 m^3
Residence time	46 hr
Buffer Zone	1m^3 (approx.)

Disinfection equipment:

Chlorinator Type	Tablet Dispenser Cassette
Chlorine min contact time (max flow)	30 min

Motor Box:

Equipment Contained	Air Blower, Control Board, Decanter Solenoid Valve equipment

Effluent Pump (standard):

Effluent pump duty	100 litres/min @ 8 m head
Pump Mounting	Suspended on discharge pipe

Optional Equipment

Rapid Sand Filtration Equipment:

Flow rate (max)	250 litre/min

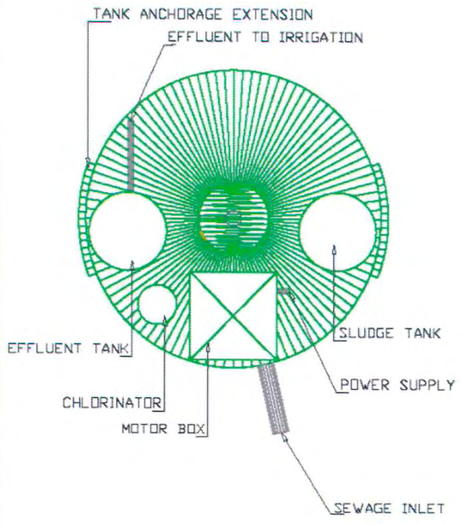
Nutrient Reduction Equipment:

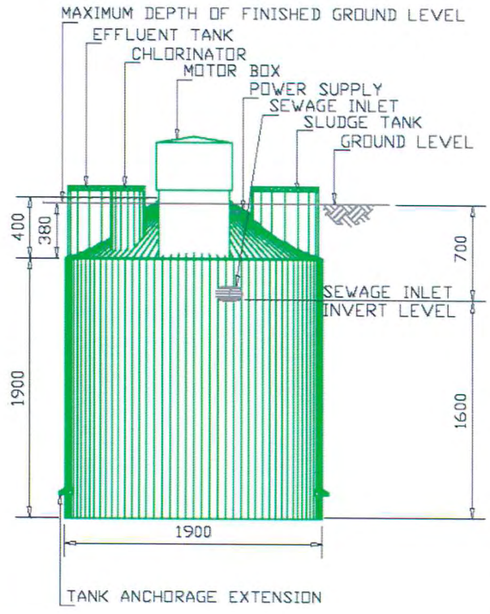
Process control	Electronic
Phosphate reduction process	Chemical dosing / Sludge wasting

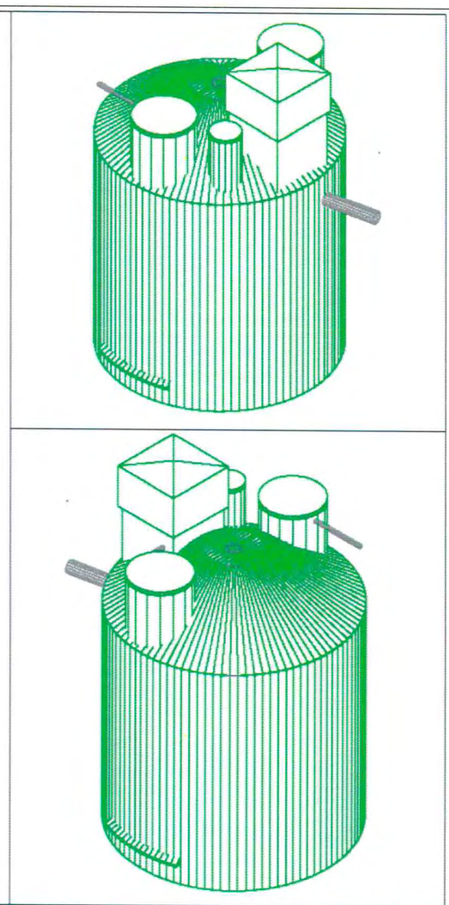
Sock Filters	120/210/Other Microns
Lifting/Pump Stations	SLS250, PT500, other sizes available
Other Customization available	Please enquire

Irrigation Equipment: Basic irrigation equipment is supplied with the treatment plant. The irrigation system could be of several different formats. Check with Local Authority requirements.

SYSTEM DRAWING







25/05/08	REPLACE SIPHON BY DECANTER	1	DC
DATE	DESCRIPTION	REV.	BY

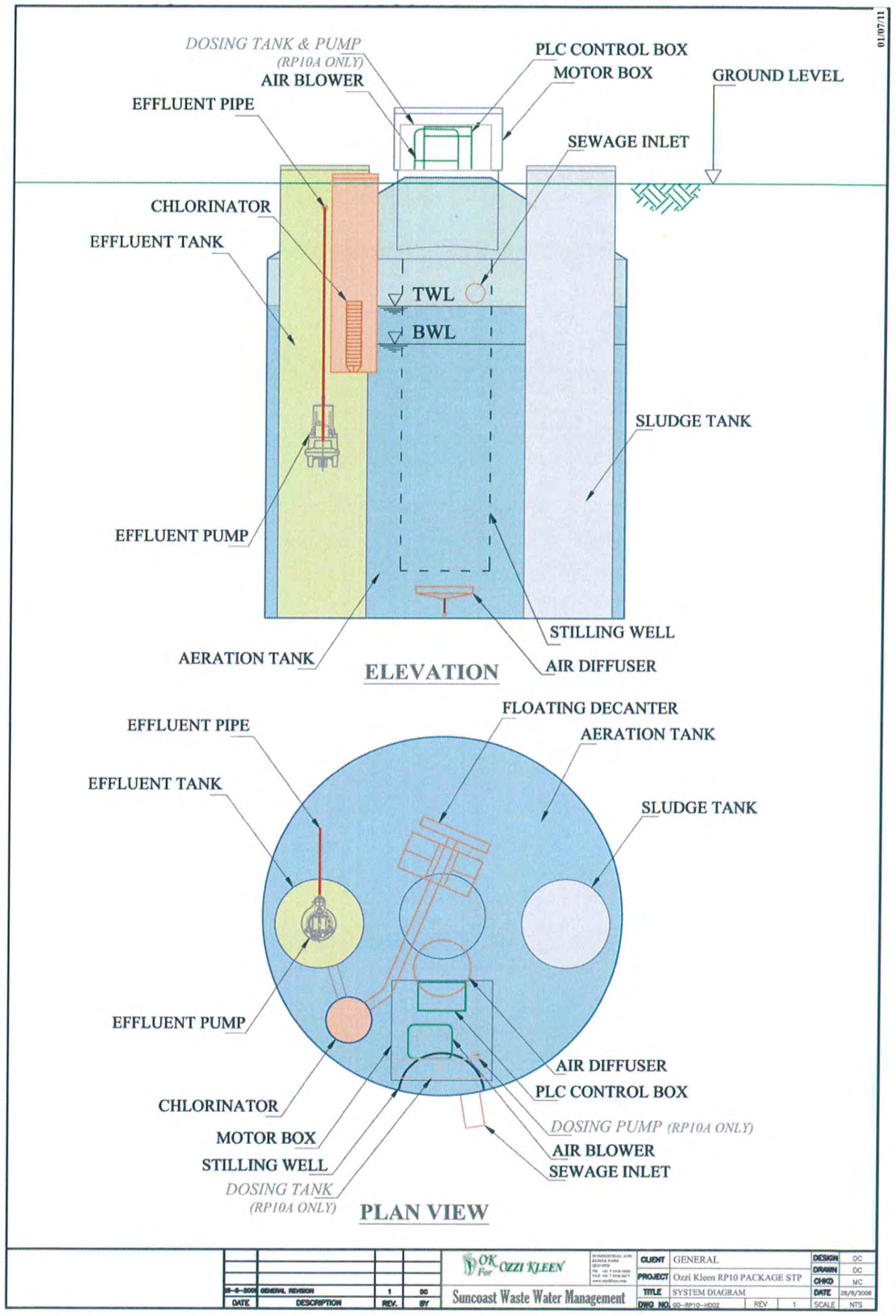
OK For OZZI KLEEN®

29 INDUSTRIAL AVE
HUNDIA PARK
QLD 4226
PH +61 7 5436 4600
FAX+61 7 5436 4677

Suncoast Waste Water Management

CLIENT	GENERAL			DESIGN	DC
PROJECT	OZZI KLEEN AWTS RP10			DRAWN	DC
				CHKD	MC
TITLE	SYSTEM DETAILS			DATE	25/05/08
DWG NO.	GD–RP10–HD01	REV	1	SCALE	NTS

SYSTEM FLOW DIAGRAM



SAFETY INFORMATION

Never enter any compartment of the treatment plant.

There could be potential hazards from:

- Drowning in the tanks,
- Asphyxiation from an oxygen depleted atmosphere within the tanks.

There are five accessible compartments:

- The motor box control compartment, which is accessible through the top lid.
- The main aeration tank, which is accessible by tilting the motor box on its hinges.
- The effluent tank with its pump, which is accessible through one of the large round lids.
- The sludge waste tank, which is accessible through the other large round lid.
- The chlorinator, which is accessible through the small round lid between the motor box and effluent tank.

All access lids are normally secured with set screws. The Owner should ensure that they are all in place after any site inspection has been carried out.

Signs indicating that the treated water is recycled and is not fit for drinking have been provided and are to be erected in the irrigation area. This is a State Regulatory Authority requirement in all areas.

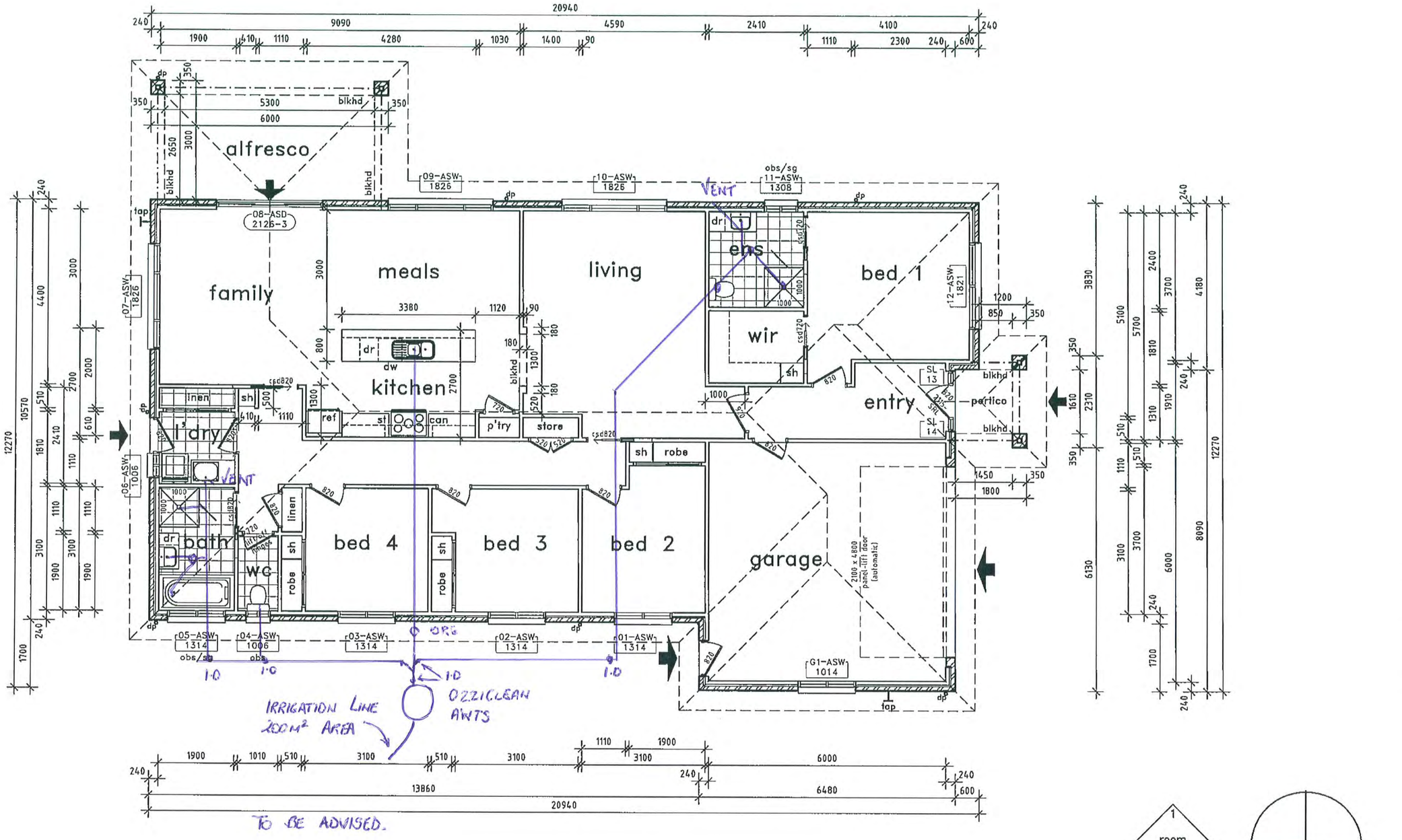
The Ozzi Kleen system operates on a 240 V power supply.

The main power outlets within the motor box are intended for the use of the treatment plant equipment only. These should be kept plugged in at all times. The power outlets cannot be used for any other power appliances. Plugging anything else into these outlets will affect the systems controls, and may void warranty.

Ensure all household drains are never dry.
Check with your plumber that they have been installed correctly. Floor waste gully traps in your home require to be charged with water to prevent odours from the drains. If odours occur have your plumbing checked.

OPTIONAL RAPID SAND FILTRATION SYSTEM OPERATING INSTRUCTIONS

The Sand Filter is a tertiary treatment process. Under normal operation, the sand filter will have to be backwashed at infrequent intervals. Backwashing will be required approximately every three months, at each treatment plant service, or more often as required. Please observe and check the sand filter regularly.



room orientation

north

Working Drawing

Project/Client

Proposed dwellings for Proten Holdings Pty Ltd Lot 42 Sturt Highway Euroley, NSW 2700 DP pending

ground floor plan (dwelling 1 & 2)

floor area: 189.1m²	external walls: 240mm
garage area: 39.4m²	internal walls: 90mm
portico area: 4.0m²	glazing to AS1288
alfresco area: 18.0m²	

Scale	1:100
Drawing Start	20.10.14
Signed off	
Project Number	P2260
Drawing Number	2 of 10
Plot date	16.07.15

Inclusion: S2/Shelby187/Standard/modified

revision : P03_W03

DAVIS SANDERS HOMES

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Generators

C13 TE2A

330 kW (1500 rpm) - 360 kW (1800 rpm)

1/ GENERAL		1500 rpm	1800 rpm
Engine model		C13 TE2A	
Basic engine type		F3BE0685A*B101 - 8050770 XZ	
Number of cylinders		6	
Firing order (N° 1 nearest to fan)		1-4-2-6-3-5	
Cylinder arrangement		in line	
Valves per cylinder		4	
Cycle		diesel 4 stroke	
Injection system		direct E.U.I	
Electronic engine control unit		BOSCH EDC7 UC31	
Induction System		turbo aftercooler air/air	
Bore	mm	135	
Stroke	mm	150	
Total displacement	lit	12,88	
Mean piston speed	m/s	7,5	9
Compression ratio		16,5 : 1	
Flywheel rotation		anti clockwise viewed on flywheel	
Housing flywheel		SAE 1	
Flywheel		14"	
Moment of inertia			
without flywheel	kgm^2	1,05	
flywheel only	kgm^2	1,44	
BMEP gross			
Prime Power	bar/kPa	19,5 / 1948,1	18,1 / 1811,6
Stand-by Power	bar/kPa	21,4 / 2142,9	19,9 / 1992,8
Dry weight (including cooling package)	kg	~ 1180	
Energy to coolant	kcal/kWh	216	293
Energy to charge cooler	kcal/kWh	179	199
Energy to radiation	kcal/kWh	30	25
Dimensions L x W x H	mm	2272 x 1055 x 1468	

2/ PERFORMANCES			1500 rpm	1800 rpm
Continuous Power	(gross)	kWm	254,8	286,7
Prime Power	(gross)	kWm	314,9	352,2
Stand-By Power	(gross)	kWm	345	385
Fan consumption		kWm	15	25
Continuous Power	(net)	kWm	240	262
Prime Power	(net)	kWm	300	327
Stand-By Power	(net)	kWm	330	360
Performance condition				
temperature		°C	≤ 40	
altitude a.s.l		m	≤ 1000	
Derating				
temperature > T 40°C		%/5°C	4%	
altitude >1000 <3000 m		%/500m	3%	
altitude >3000 m		%/500m	6%	

FPT POWERTRAIN TECHNOLOGIES

3/ COOLING SYSTEM

		1500 rpm	1800 rpm
Type		liquid	
Recommanded coolant		water + 50 % paraflu 11	
Coolant capacity			
engine only	liter	19,5	
radiator and hoses	liter	47,5	
Coolant pump flow	l/min	461	552,63
Pressure cap setting	kPa (bar)	70 (0,7)	
Shutdown switch setting	°C	103	
Maximum additional restriction	Pa	196	
Air To Boil Prime Power	°C	61,5	62,4
Fan			
diameter	mm	700	
number of blades		8	
drive ratio		1,37 : 1	
speed	rpm	2055	2466
air flow	m^3/s	6,8	8,5
power consumption	kWm	15	25

4/ LUBRICATION SYSTEM

		1500 rpm	1800 rpm
Oil sump capacity			
max	liter	27	
min	liter	14	
Oil system capacity including filter	liter	35	
Oil pressure at rated speed	kPa	250-500	
Oil temperature			
normal	°C	---	
max	°C	120	
Engine Angularity			
longitudinal	degrees	30°	
transverse	degrees	30°	
Servicing interval	hours	600	
Oil specification		ACEA E3/E5	
Oil consumption	%fuel	< 0,2	

5/ INTAKE SYSTEM

		1500 rpm	1800 rpm
Air consumption at 100 % of load	m^3/h (Kg/h)	1495 (1800)	1777 (2140)
Air intake restriction, clean filter	kPa (mbar)	2 (20)	
Air intake restriction, dirty filter	kPa (mbar)	5 (50)	
Air filter type		dry	

6/ EXHAUST SYSTEM

		1500 rpm	1800 rpm
Gas flow at stand-by Power	kg/h	1865	2216
Max temperature at PRP (25°C)	°C	479	451
Max allowable back pressure	kPa (mbar)	5 (50)	
Energy to exhaust	kcal/kWh	648	647

7/ FUEL SYSTEM		1500 rpm	1800 rpm
Fuel consumption at			
Stand-By	gr/kWh (l/h) [kg/h]	189,6 (77,9) [65,4]	198,4 (91,0) [76,4]
Full load	gr/kWh (l/h) [kg/h]	187,5 (70,0) [58,8]	182,6 (76,1) [63,9]
80%	gr/kWh (l/h) [kg/h]	191,8 (57,3) [48,1]	202,2 (67,4) [56,6]
50%	gr/kWh (l/h) [kg/h]	207,8 (38,8) [32,6]	210,2 (43,8) [36,8]
Fuel specifications		EN 590	
Feed pump max suction head	m	---	

8/ ELECTRIC SYSTEM			1500 rpm	1800 rpm
Voltage (negative to ground)		V	24	
Starter motor				
make			DENSO	
power		kW	5,5	
pull current		Amp	12	
hold current		Amp	12	
break away current +20°C		Amp	1250	
cranking current +20°C		Amp	0	
Number of teeth on starter motor			10	
Number of teeth on flywheel			155	
Starting batteries				
recommended capacity	Ah	2x	185	
discharge current		Amp	1200	
(EN 50342)				
Alternator				
voltage		V	28	
charge		Amp	90	

9/ COLD STARTING		1500 rpm	1800 rpm
Without air preheating	°C	-10	
With air preheating	°C	-25	

10/ EMISSION GASEOUS AND PARTICLES			1500 rpm	1800 rpm
No_x	Oxides of nitrogen	gr/kWh	5,2	-
HC	Hydrocarbons	gr/kWh	0,13	-
No_x+HC		gr/kWh	5,33	-
CO	Carbon monoxide	gr/kWh	0,35	-
PT	Particles	gr/kWh	0,061	-

FPT POWERTRAIN TECHNOLOGIES

Date of update October 2008
Specifications subject to change without notice
Illustrations may include optional equipment.

N67 TM2A

125 kW (1500 rpm) - 140 kW (1800 rpm)

1/ GENERAL		1500 rpm	1800 rpm
Engine model		N67 TM2A	
Basic engine type		F4GE0685D*F650 - 504241370	
Number cylinders		6	
Firing order (N° 1 nearest to fan)		1-5-3-6-2-4	
Cylinder arrangement		in line	
Valves per cylinder		2	
Cycle		diesel 4 stroke	
Injection system		direct	
Induction System		Turbocharged aftercooled air/air	
Bore	mm	104	
Stroke	mm	132	
Total displacement	lit	6,7	
Mean piston speed	m/s	6,6	7,9
Compression ratio		17,5 : 1	
Flywheel rotation		anti clockwise viewed on flywheel	
Housing flywheel		SAE 3	
Flywheel		11"1/2	
Moment of inertia			
without flywheel	kgm^2	0,31	
flywheel only	kgm^2	0,71	
BMEP gross			
Prime Power	bar/kPa	14,1 / 1411,1	13,4 / 1338,8
Stand-by Power	bar/kPa	15,5 / 1552,2	14,7 / 1472,6
Dry weight (including cooling package)	kg	~ 640	
Energy to coolant	kcal/kWh	458,4	463,1
Energy to charge cooler	kcal/kWh	97,9	118,2
Energy to radiation	kcal/kWh	66	51
Dimensions L x W x H	mm	1697 x 789 x 1318	

2/ PERFORMANCES			1500 rpm	1800 rpm
Continuous Power	(gross)	kWm	95,7	109,4
Prime Power	(gross)	kWm	118,5	134,8
Stand-By Power	(gross)	kWm	129,5	147,8
Fan consumption		kWm	4	6,9
Continuous Power	(net)	kWm	91,2	101,6
Prime Power	(net)	kWm	114	127
Stand-By Power	(net)	kWm	125	140
Performance condition				
temperature		°C	≤ 40	
altitude a.s.l		m	≤ 1000	
Derating				
temperature > T 40°C		%/5°C	1%	
altitude >1000 <3000 m		%/500m	2%	
altitude >3000 m		%/500m	4%	

FPT POWERTRAIN TECHNOLOGIES

N67 TM2A

125 kW (1500 rpm) - 140 kW (1800 rpm)

3/ COOLING SYSTEM		1500 rpm	1800 rpm
Type		liquid	
Recommanded coolant		water + 50 % paraflu 11	
Coolant capacity			
engine only	liter	10,5	
radiator and hoses	liter	15	
Coolant pump flow	l/min	141	169
Pressure cap setting	kPa (bar)	100 (1,0)	
Shutdown switch setting	°C	103	
Maximum additional restriction	Pa	196	
Air To Boil Prime Power	°C	61,5	59,1
Fan			
diameter	mm	600	
number of blades		12	
drive ratio		1,41 : 1	
speed	rpm	2115	2538
air flow	m^3/s	3,2	3,9
power consumption	kWm	4	6,9

4/ LUBRICATION SYSTEM		1500 rpm	1800 rpm
Oil sump capacity			
max	liter	12	
min	liter	8	
Oil system capacity including filter	liter	17,2	
Oil pressure at rated speed	kPa	300-500	
Oil temperature			
normal	°C	---	
max	°C	120	
Engine angularity			
longitudinal	degrees	25°	
transverse	degrees	25°	
Servicing interval	hours	600	
Oil specification		ACEA E3/E5	
Oil consumption	%fuel	< 0,1	

5/ INTAKE SYSTEM		1500 rpm	1800 rpm
Air consumption at 100 % of load	m^3/h (Kg/h)	559 (672,5)	693 (833,9)
Air intake restriction, clean filter	kPa (mbar)	2 (20)	
Air intake restriction, dirty filter	kPa (mbar)	5 (50)	
Air filter type		dry	

6/ EXHAUST SYSTEM		1500 rpm	1800 rpm
Gas flow at stand-by Power	kg/h	699	866
Max temperature at PRP (25°C)	°C	467,8	489,2
Max allowable back pressure	kPa (mbar)	5 (50)	
Energy to exhaust	kcal/kWh	628,8	711,5

FPT POWERTRAIN TECHNOLOGIES

7/ FUEL SYSTEM		1500 rpm	1800 rpm
Fuel consumption at			
Stand-By	gr/kWh (l/h) [kg/h]	206,9 (32,0) [26,9]	216,1 (38,1) [32,0]
Full load	gr/kWh (l/h) [kg/h]	208,1 (29,3) [24,6]	217,1 (34,8) [29,2]
80%	gr/kWh (l/h) [kg/h]	228,0 (24,1) [20,2]	237,6 (28,5) [24,0]
50%	gr/kWh (l/h) [kg/h]	225,0 (15,8) [13,3]	239,4 (19,2) [16,1]
Fuel specifications		EN 590	
Feed pump max suction head	m	---	
Injection pump	type STANADYNE	DB 4629-5932	

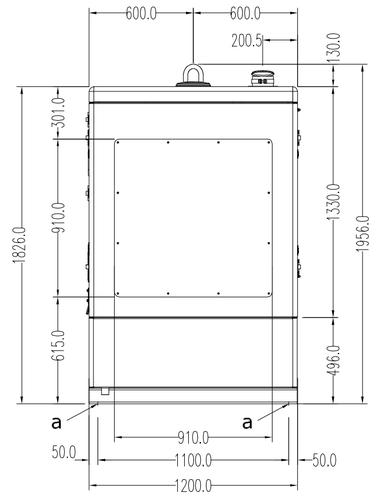
8/ ELECTRIC SYSTEM		1500 rpm	1800 rpm
Voltage (negative to ground)	V	12	
Starter motor			
make		Bosch	
power	kW	3	
pull current	Amp	60	
hold current	Amp	12	
break away current +20°C	Amp	1580	
cranking current +20°C	Amp	---	
Number of teeth on starter motor		10	
Number of teeth on flywheel		125	
Starting batteries			
recommended capacity Ah	1x	100	
discharge current (EN 50342)	Amp	650	
Stop solenoid energized to run	Amp	---	
Alternator			
voltage	V	14	
charge	Amp	90	

9/ COLD STARTING		1500 rpm	1800 rpm
Without air preheating	°C	-10	
With air preheating	°C	-25	

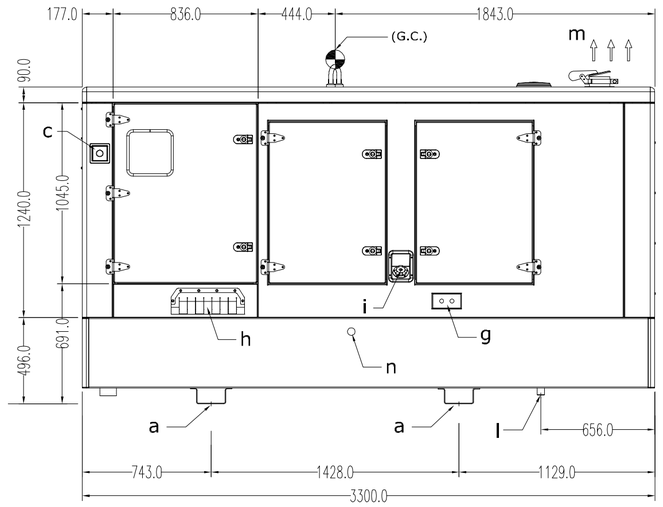
10/ EMISSION GASEOUS AND PARTICLES			1500 rpm	1800 rpm
No_x	Oxides of nitrogen	gr/kWh	5,42	-
HC	Hydrocarbons	gr/kWh	0,1	-
No_x+HC		gr/kWh	5,52	-
CO	Carbon monoxide	gr/kWh	0,5	-
PT	Particles	gr/kWh	0,131	-

Date of update October 2008
Specifications subject to change without notice
Illustrations may include optional equipment.

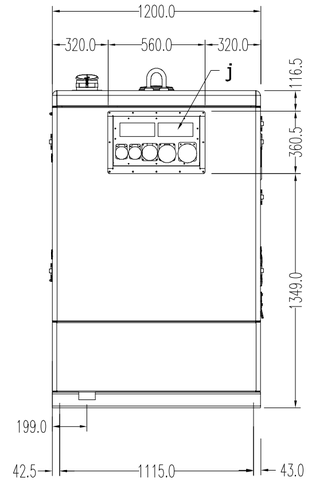
FPT POWERTRAIN TECHNOLOGIES



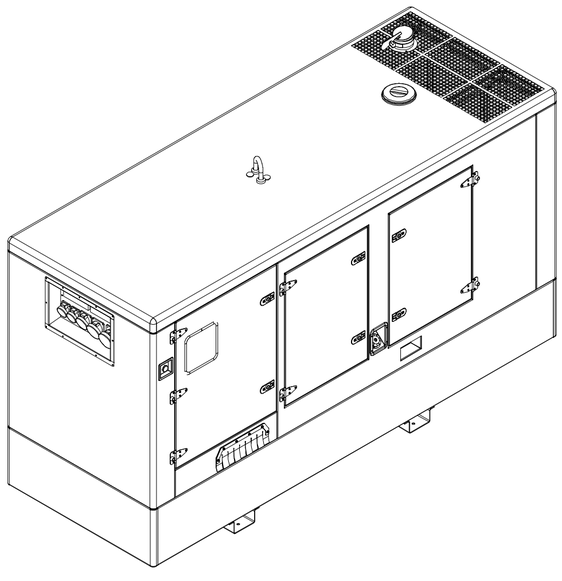
VISTA LATERAL IZQUIERDA
LEFT SIDE VIEW



VISTA FRONTAL
FRONT VIEW

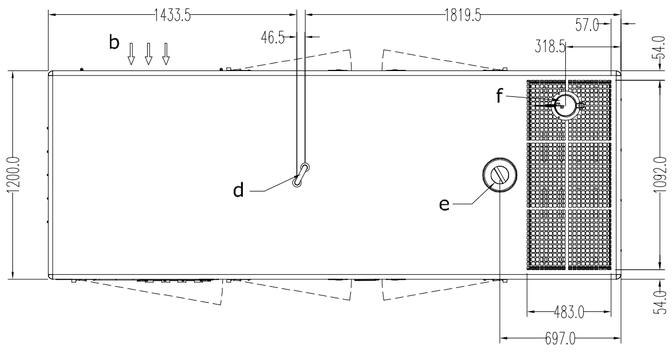


VISTA LATERAL DERECHA
RIGHT VIEW



VISTA ISOMETRICA
ISOMETRIC VIEW

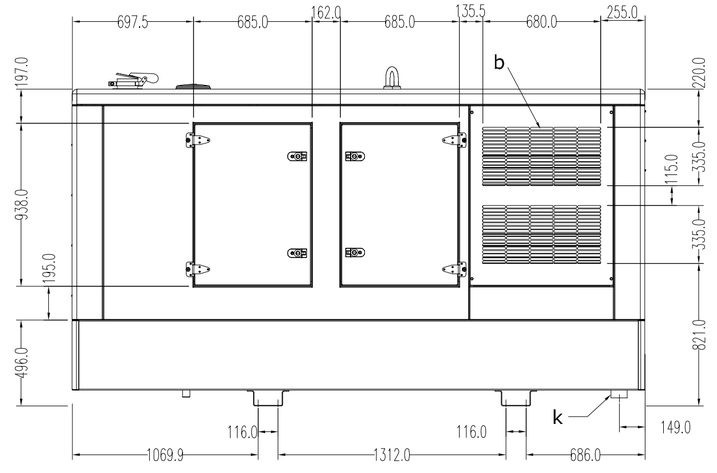
Motor / Engine	Modelo Motor / Engine model
IVECO	NEF67 TE 2A
IVECO	NEF67 TM 2A
IVECO	NET67 TM 3A



VISTA SUPERIOR
UPPER VIEW

OPCIONES DEPOSITOS / FUEL TANKS OPTIONS:
450 LITRES (POLIETILENO / POLYETHYLENE)
600 LITRES (METAL)

ITEM	DESCRIPCIÓN	DESCRIPTION
a	PUNTO DE FIJACIÓN (4x□16mm)	MOUNTING POINT (4X□16mm)
b	ENTRADA DE AIRE	AIR INLET
c	PARADA DE EMERGENCIA	EMERGENCY STOP
d	GANCHO DE IZADO	LIFTING POINT
e	ACCESO RADIADOR	RADIATOR ACCESS TO
f	SALIDA DE ESCAPE □120mm	EXHAUST OUTLET □120mm
g	CONEXIONES EXTERNAS DE COMBUSTIBLE (VALVULA DE 3 VÍAS OPCIONAL)	EXTERNAL FUEL SUPPLY CONNECTIONS (OPTIONAL 3 WAYS MANIFOLD)
h	ENTRADA CABLE	CABLE ENTRANCE
i	ENTRADA EXTERNA DE COMBUSTIBLE	EXTERNAL FUEL FILLING
j	CUADRO DE BASES OPCIONAL	OPTIONAL RECEPTACLE BOX
k	TAPÓN DRENAJE	ACCESS TO DRAIN
l	DRENAJE DE CHASIS	DRAIN OF BASE FRAME
m	SALIDA DE AIRE	AIR OUTLET
n	SALIDA DE DRENAJE DE ACEITE	OIL DRAIN OUTLET



VISTA POSTERIOR
REAR VIEW

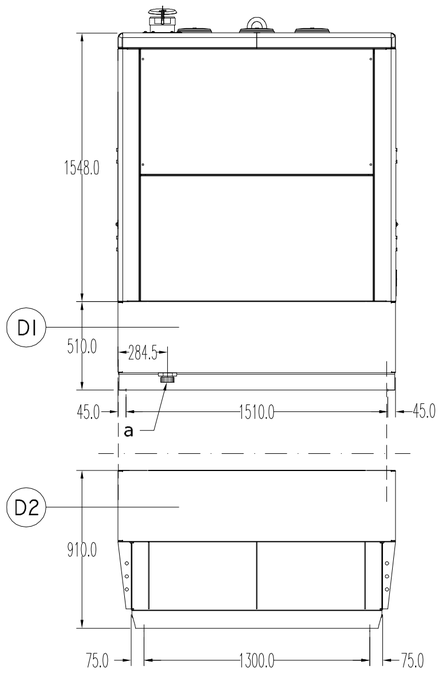
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THE ENERGY

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DESIGNED:	14/10/11	SK.		NEW CODE:
REVISED:	14/10/11	A.P.		
APPROVED:	14/10/11	A.P.		

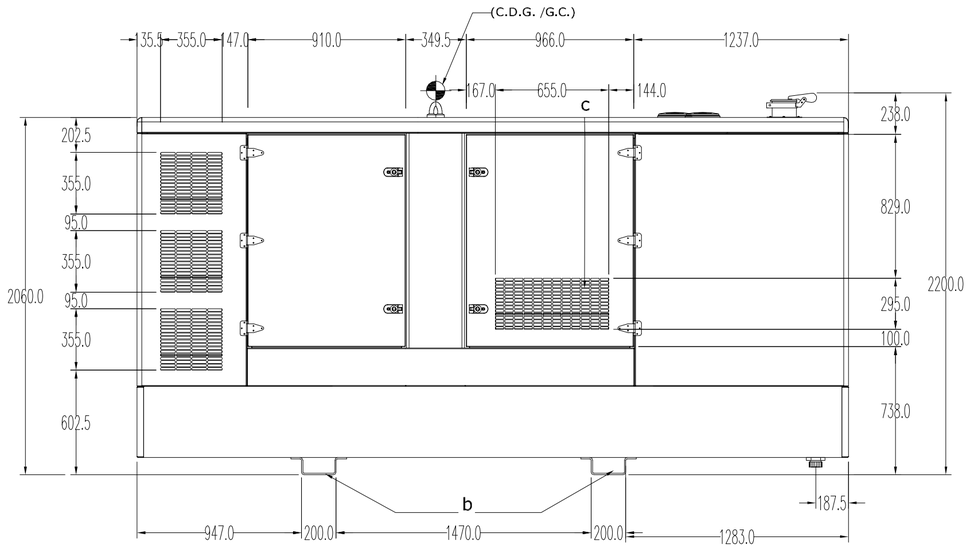
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DESIGNACIÓN / DESIGNATION:
GRUPO ELECTROGENO INSONORIZADO / SOUNDPROOF GENSET
MOTOR / ENGINE: IVECO
CARROCERIA MODELO / CANOPY MODELL: E10

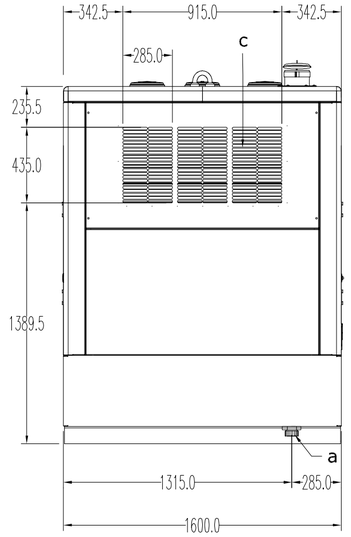
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CODE: GI-00078-E10
REVISION: DIN- A2
UNIT: mm SCALE: 1/25



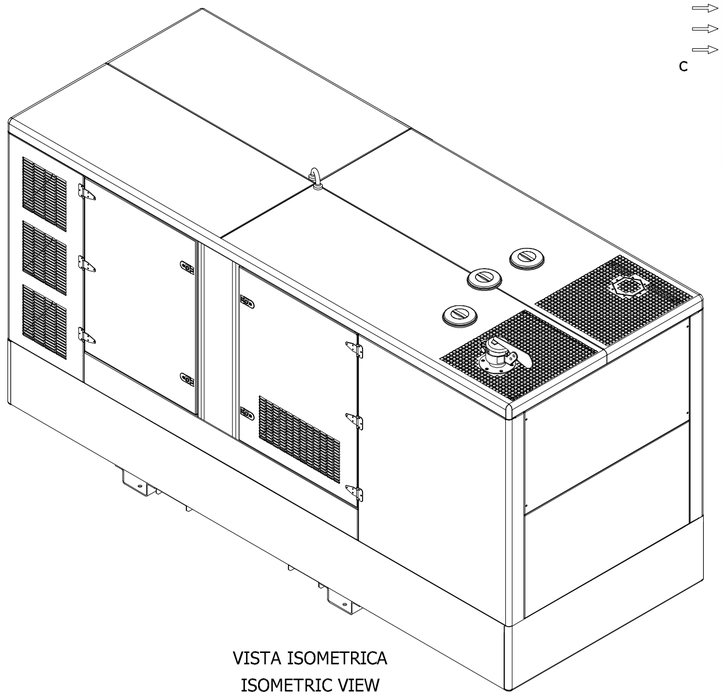
VISTA LATERAL IZQUIERDA
LEFT SIDE VIEW



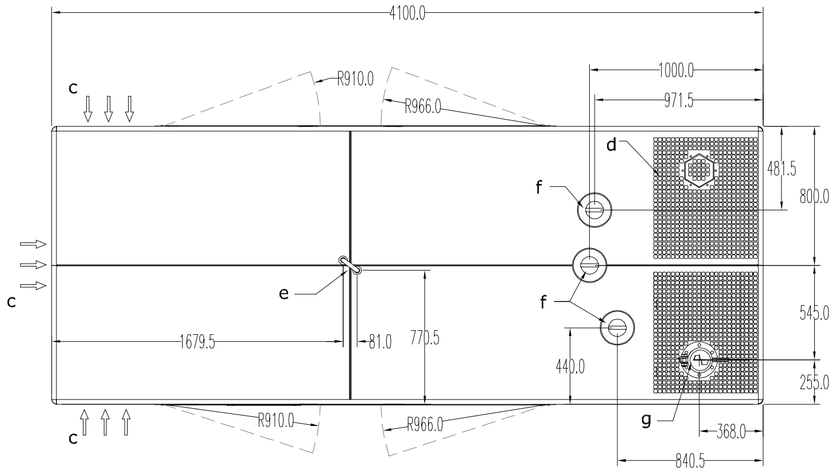
VISTA FRONTAL
FRONT VIEW



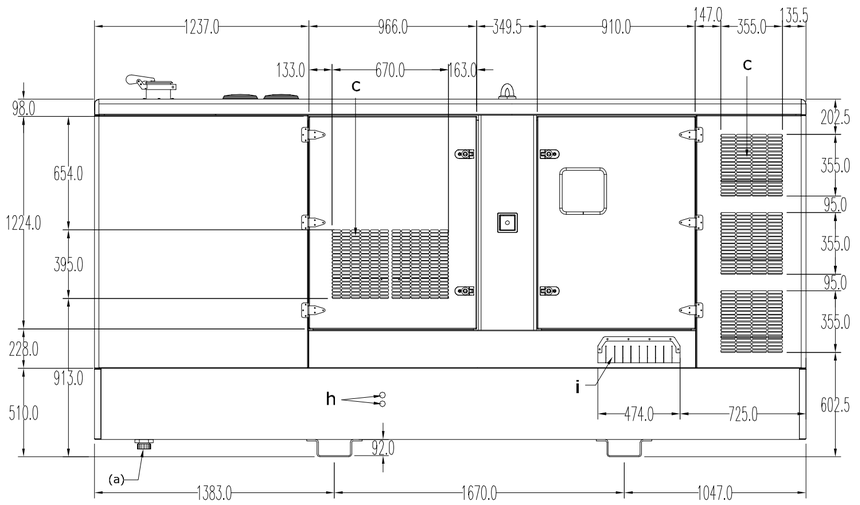
VISTA LATERAL DERECHA
RIGHT VIEW



VISTA ISOMETRICA
ISOMETRIC VIEW



VISTA SUPERIOR
UPPER VIEW



VISTA POSTERIOR
REAR VIEW

Motor/Engine	Modelo Motor / Engine model
IVECO	C13 ENTX 60.00
IVECO	C13 TE 2S
IVECO	C13 TE 3S

	NOTAS	NOTES
a	TAPÓN DRENAJE	ACCESS TO DRAIN
b	FIJACIÓN GRUPO (4 x Ø22 mm)	MOUNTING POINT (4 x Ø22 mm)
c	ENTRADA AIRE	AIR INLET
d	SALIDA DE AIRE	AIR OUTLET
e	GANCHO IZADO	LIFTING POINT
f	ACCESO RADIADOR	RADIATOR ACCESS
g	SALIDA DE ESCAPE Ø140 mm	EXHAUST OUTLET Ø140 mm
h	PASAMUROS	FOR EXTERNAL FUEL SUPPLY CONNECTIONS Ø42mm
i	SALIDA DE POTENCIA	POWER OUTLET

D1 CAPACIDAD DEL DEPOSITO / TANK CAPACITY : 597 LITRES

D2 CAPACIDAD DEL DEPOSITO / TANK CAPACITY : 1660 LITRES

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THE ENERGY

	DATE:	NAME:	
DESIGNED:	17/06/09	A.M.	
REVISED:	01/02/13	SK	
APPROVED:	01/02/13	A.P.	

OLD CODE:
NEW CODE:

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DESIGNACIÓN / DESIGNATION:
GRUPO ELECTROGENO INSONORIZADO / SOUNDPROOF GENSET
MOTOR / ENGINE: IVECO
CARROCERIA MODELO / CANOPY MODELL: G1

DRAWING Nº:
CODE: GI-00041-G1
REVISION: 02 DIN- A2
UNIT: mm SCALE: 1/25